				DEPARTMEN <sup>*</sup>	T OF NA	OF UTAH ATURAL RESO GAS AND MI				AMENDED	FORM 3	<b>Y</b>
		APPLI	CATION FOR	PERMIT TO DRIL	.L			1. WELL NAME and NUMBER GORDON CREEK SW-32-13-8				
2. TYPE OF		. NEW WELL 📵	REENTER P8	A WELL DEEP	PEN WELI	L()		3. FIELD	OR WILDC			
4. TYPE OF	WELL	Gas W	ell Coalb	ed Methane Well: NO				5. UNIT	or COMMUN	IITIZATION	AGREEM	ENT NAME
6. NAME O	F OPERATOR	003 111	GORDON CF					7. OPER	ATOR PHON	E 403 453-16	าย	
8. ADDRES	S OF OPERATOR			Price, UT, 84501				9. OPER	ATOR E-MAI			m
	AL LEASE NUMB	ER	79 L Maiii #343,	11. MINERAL OWN	ERSHIP	•		12. SURI	FACE OWNE		leriergy.co	_
		32 Fee Lease		FEDERAL IN	DIAN [	STATE (	) FEE 📵	FEDERAI		-	STATE	FEE 📵
	OF SURFACE OW		Mark Ja	acobs						R PHONE (i 801-226-34	07	
15. ADDRE	SS OF SURFACE			, Orem, UY 84097						R E-MAIL (i	6 box 12 :	= 'fee')
	N ALLOTTEE OR ' = 'INDIAN')	TRIBE NAME		18. INTEND TO CO		LE PRODUCTIO	ON FROM	19. SLAN	NT			
				YES (Submit	Commin	gling Application	n) NO 📵	VERTICA	L DIR	ECTIONAL (	HORI	ZONTAL 🔵
20. LOCA1	TION OF WELL		FO	OTAGES	Q	TR-QTR	SECTION	тои	VNSHIP	RANG		MERIDIAN
LOCATION	N AT SURFACE		1340 F	SL 871 FWL	N	IWSW	32	13	3.0 S	8.0 E		S
Top of Up	permost Produc	ing Zone	1340 F	SL 871 FWL	N	wsw	32	1:	3.0 S	8.0 E		S
At Total D	epth		1340 F	SL 871 FWL	N	wsw	32			8.0 E		S
21. COUNT		RBON		22. DISTANCE TO NEAREST LEASE LINE (Feet)				23. NUM	IBER OF ACE	RES IN DRIL 40	LING UN	ΙΤ
				25. DISTANCE TO NEAREST WELL IN SAME POOL (Applied For Drilling or Completed)				26. PRO	POSED DEP MD:		): 4228	
27. ELEVAT	TION - GROUND	<b>LEVEL</b> '446		28. BOND NUMBER  RLB0010790						LLING WAT PROVAL NUN 91-5193		PPLICABLE
				Hole, Casing, and Cement Information								
String SURF	Hole Size	Casing Size	0 - 450			& Thread 5 ST&C			Cement Class G	Sacks 212	Yield 1.142	Weight 15.84
PROD	7.875	5.5	0 - 422			80 LT&C	10.0		Class G	368	2.69	10.7
				A	ATTACH	IMENTS						1
	VERIFY THE	FOLLOWING	ARE ATTACH	ED IN ACCORDA	NCE W	ITH THE UTA	AH OIL AND (	GAS CON	ISERVATIO	ON GENER	AL RULE	:s
<b>W</b> EL	LL PLAT OR MAP	PREPARED BY	LICENSED SUR	VEYOR OR ENGINEE	ER	СОМРІ	LETE DRILLING	G PLAN				
<b>I</b> AFFI	IDAVIT OF STAT	US OF SURFACE	OWNER AGRE	EMENT (IF FEE SUR	FACE)	FORM !	5. IF OPERATO	R IS OTHI	ER THAN TH	IE LEASE OV	VNER	
DIRE DRILLED)	DIRECTIONAL SURVEY PLAN (IF DIRECTIONALLY OR HORIZONTALLY TOPOGRAPHICAL MAP											
NAME Bar	ry Brumwell		TITLE	ice President-Operation	ons		PHONE 403	3 453-1608	8			
SIGNATU	RE		DATE 0	9/26/2011 <b>EMAIL</b> bbru			brumwell@thunderbirdenergy.com					
	BER ASSIGNED 0750246000	0	APPRO	OVAL B.O.O.				Republic				
							Permit	Manager				

# **DRILLING PLAN and PROGRAM**

Attached to UDOGM Form 3

# **GORDON CREEK, LLC.**

SW-32-13-8

SURFACE LOCATION:

1,340.38' FSL & 870.65' FWL

NW/4 of SW/4 of Section 32-13S-8E

Carbon County, Utah

# 1. SURFACE GEOLOGIC FORMATION

Emery Sandstone Member of the Mancos Shale

# 2. ESTIMATED TOPS OF IMPORTANT GEOLOGIC MARKERS

Mancos Blue Gate Shale top:

1,854' KB

Lower Blue Gate Bentonite Marker:

3,623' KB

Ferron SS:

3,758' KB

# 3. PROJECTED GAS & H<sub>2</sub>0 ZONES

While no groundwater is expected to be encountered, groundwater *may* be encountered within the Emery Sandstone Member of the Mancos Shale. Any water encountered will be reported on a Form 7 "Report of Water Encountered During Drilling". All indications of usable water will be reported.

Casing & cementing will be done to protect potentially productive hydrocarbons, lost circulation zones, abnormal pressure zones and prospectively valuable mineral deposits.

Surface casing will be tested to 500 psi and the Production casing will be tested to 1,500 psi, with a minimum of 1 psi/ft of the last casing string setting depth.

# 4. PROPOSED CASING AND CEMENTING PROGRAMS

Refer to EXHIBIT "A" for casing design information

# A. CASING PROGRAM

HOLE SIZE (in)	CASING SIZE (in)	WEIGHT (#/ft)	GRADE	JOINT	DEPTH SET (ft)
17	12 3/4	40.5	H-40	ST&C	0 – 40
11	8 <sup>5</sup> / <sub>8</sub>	24.00	J-55	ST&C	0 – 450
7 7/8	5 1/2	17.00	N-80	LT&C	0 – 4,228

# **B. CEMENTING PROGRAM**

The 8  $^5/_8$ " surface casing will be set and cemented full length with approximately 212 sacks of 0-1-0 Class "G" cement + 2% CaCl<sub>2</sub> + 0.25 #/sk of cellophane flakes mixed at 15.84 ppg (yield = 1.142 ft<sup>3</sup>/sk); volume based on nominal hole size + 100% excess. The cement will be circulated back to surface. In the event that the cement is not circulated back to surface, a 1" top out job will be performed with 0-1-0 Class "G" cement + 2% CaCl<sub>2</sub> + 0.25 #/sk of cellophane flakes mixed at 15.84 ppg (yield = 1.142 ft<sup>3</sup>/sk).

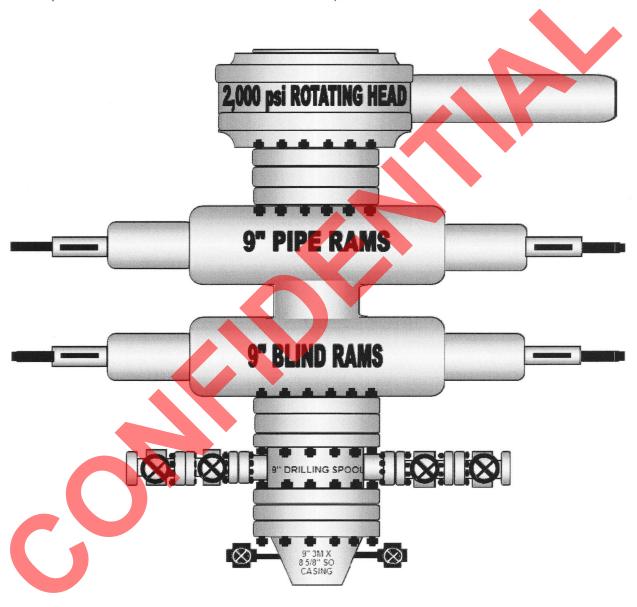
The 5 ½" production casing will be set and cemented full length using 368 sx of 0-1-0 "G" Light Weight cement incorporating 42% "SuperBall" centrospheres to lighten the cement density + 3% NaCl, 0.3% Air-out, 1.5% SFI-300, 0.2% SCR-2. The cement will be mixed at 10.7 ppg (yield = 2.69 ft3/sk); volume based on nominal hole size + 35% excess. The cement will be circulated back to surface.

# THE FOLLOWING SHALL BE ENTERED INTO THE DRILLER'S LOG.

- I. Blowout preventer pressure tests, including test pressures and results;
- II. Blowout preventer tests for proper functioning,
- III. Blowout prevention drills conducted;
- IV. Casing run, including size, grade, weight, and depth set;
- V. How the pipe was cemented, including amount of cement, type, whether cement was circulated back to surface, location of the cementing tools, etc.;
- VI. Waiting on cement time for each casing string;
- VII. Casing pressure tests after cementing, including test pressures and results.

# 5. THE OPERATOR'S MINIMUM SPECIFICATIONS FOR PRESSURE CONTROL

Below is a schematic diagram of the blowout preventer equipment requirements for this drilling operation. A 9' X 3,000 psi double gate BOP will be used with a 2,000 psi Rotating Head utilized for air drilling operations. ALL BOPE will be pressure tested to the required operating pressures of each component. All tests will be recorded in the Driller's Report Book. The physical operation of each component of the BOP's will be checked on each trip.



# 6. THE TYPE AND CHARACTERISTICS OF THE PROPOSED CIRCULATING FLUIDS / MUDS

0' - 450'

11" Surface Hole

Drill with air, will mud-up if necessary.

450' - TMD

7 <sup>7</sup>/<sub>8</sub>" Main Hole

Drill with air, 500 psi @ 1500-2300 ft<sup>3</sup>/min

Will "mud up" at Total Depth to run logs and casing. Will mud up sooner if hole conditions dictate. It is anticipated that drilling fluid densities of 8.3 - 8.7 #/gal will be utilized when "mudded up".

# 7. THE TESTING, LOGGING AND CORING PROGRAMS

Open hole logs consisting of a CNL-LDT-GR-CAL will be run from above the Blue Gate Shale to TMD. A DIL-GR-SP log will be run from TMD to surface casing.

# 8. ANY ANTICIPATED ABNORMAL PRESSURES or TEMPURATURES

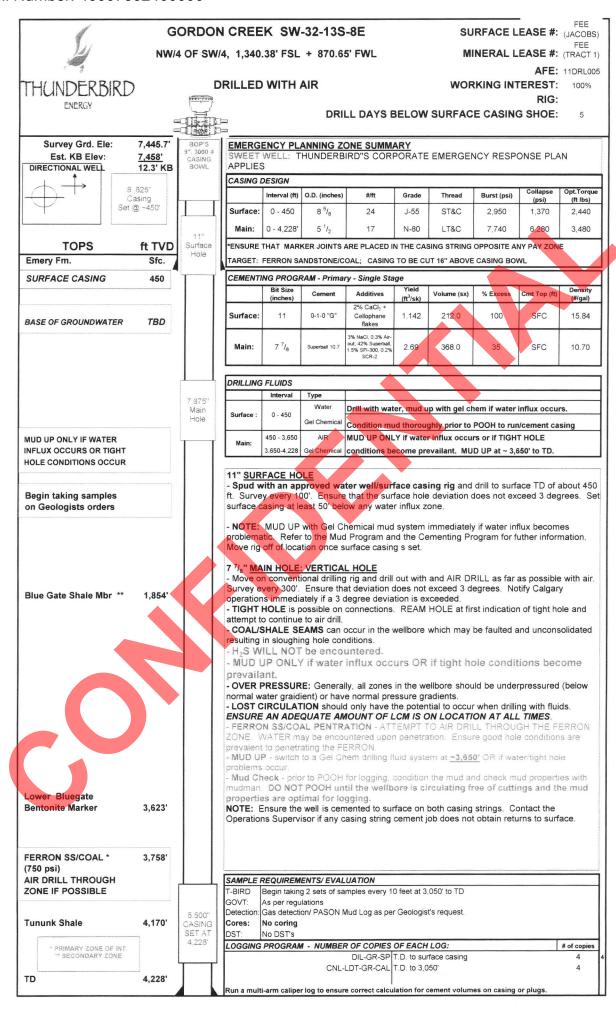
No abnormal pressures or temperatures have been noted or reported in wells drilled in the area nor at the depths anticipated in this well. Bottom hole pressure expected is approximately 1250 psi maximum. No hydrogen sulfide or other hazardous gases or fluids have been found, reported or are known to exist at these depths in the area.

# 9. ANTICIPATED STARTING DATE AND DURATION OF THE OPERATIONS

The well will be drilled between late September and the end of November, 2011. Verbal and/or written notifications listed below shall be submitted in accordance with instructions from the Division of Oil, Gas & Mining:

- a) prior to beginning construction;
- b) prior to spudding;
- c) prior to running any casing or BOP tests;
- d) prior to plugging the well, for verbal plugging instructions.

Spills, blowouts, fires, leaks, accidents or other unusual occurrences shall IMMEDIATELY be reported to the Division of Oil, Gas & Mining.



# EXHIBIT "A"

# GORDON CREEK ST SW-32-13-8 PROJECTED TD: 4,228' KB

# SURFACE CASING (0' - 450')

Diameter 8 5/8"

Interval 450' to Surface

Weight 24 #/ft Grade J-55
Coupling ST&C

# **Burst Design**

The recommended practice is to base the burst rating of the casing string in psi to be at least numerically equal to 0.225 psi/ft times the setting depth in feet of the next casing string. The rating chosen was also intended to match the BOPE pressure rating and exceed the highest possible surface pressure of approximately 936 psig.

Burst required = 0.225 x 4,228 951 psig

Burst rating of casing string: 2,950 psi

Safety factor = 2,950 psi / 951 psi = 3.10

# Collapse Design

Collapse pressure is negligible on this surface string.

# Tension Design

String weight in air 10,800 #
Tensile strength of joint 244,000 lbf
Safety factor of joint 22.6

# PRODUCTION CASING (0' - 4,228')

Diameter

5 1/2"

Interval

4,161' to surface

Weight

17 #/ft N-80

Grade Coupling

LT&C

# **Burst Design**

An internal pressure gradient of 0.4863 psi/ft has been used as a basis for these calculations. This gradient is equivalent to the force exerted by 10 ppg drilling fluid, which is a much higher density of fluid than we anticipate being required to drill this well.

Burst rating of casing string:

7,740 psi

Burst rating required:

4,228' X 0.4863 =

2,056 psig

Safety factor =

7,740 psi / 2,056 psi =

3.76

# Tension Design

1.6 Safety factor of top joint, neglecting buoyancy and without over pull.

Tensile rating of casing joint:

348,000 lbf

String Weight:

4,228' X 17 #/ft =

71,876 lbf

Safety factor =

348,000 lbf / 71,876 lbf =

4.84

# Collapse Design

Maximum anticipated mud weight is 10.0 ppg based on a mud gradient of 0.53 psi/ft.

Collapse rating of csg string:

6,280 psi

Collapse rating required:

 $4,228' \times 0.53 \text{ psi/ft} =$ 

2,241 psi

Safety factor =

6,280 psi / 2,241 psi =

2.80

# **Production Casing Design**

Interval	Weight	Grade	S.F.	S.F.	S.F.
(ft)	(#/ft)		Burst	Collapse	Tension
4,228' - 0'	17	N-80	3.76	4.84	2.80

### **MULTI-POINT SURFACE USE PLAN**

Attached to UDOGM Form 3

### **GORDON CREEK, LLC.**

SW-32-13-8

SURFACE LOCATION:

1,340.38' FSL & 870.65' FWL

NW/4 of SW/4 of Section 32-13S-8E

Carbon County, Utah

### 1. EXISTING ROADS

- a. We do not plan to change, alter or improve upon ANY existing State or County roads.
- b. Existing roads will be maintained in the same or better condition.

### 2. PLANNED ACCESS

- a. This well will be accessed from an existing two-track trail that comes off of Benches County Road and through the well site in NW-5-14-8, therefore no new access FROM Benches Road is required.
- b. If the well is productive, the road will be maintained as necessary to prevent soil erosion and maintain year-round traffic. However, we may allow the access road to be gated and closed off during winter production operations and access the site with a snowmobile or other winter ATV.
- c. Maximum Width: 24' travel surface with 27' base.
- d. Maximum grade: 25%
- e. Road culverts may be required. Surface water will be diverted around the well pad as necessary.
- f. Any power lines and or pipelines to/from the well will follow the proposed access route.

# 3. LOCATION OF EXISTING WELLS

a. As shown on the Civil Location Survey Plat for the well.

# 4. **LOCATION OF EXISTING and/or PROPOSED FACILITIES**

- a. If the well is a producer, installation of required production facilities will follow the drilling and completion phase of well operations. Buried flow lines, water lines and electrical cable will follow the proposed access road and other existing access ROWs to the intersection with Thunderbird's main 12' pipeline corridor.
- b. Rehabilitation of all pad areas not used for production facilities will be made in accordance with landowner stipulations.

# 5. LOCATION AND TYPE OF WATER SUPPLY

- a. All water to be used for drilling operations will be obtained from area water wells drilled and owned by Gordon Creek, LLC.
- b. Water will be transported to location by truck over approved access roads.

# 6. SOURCE OF CONSTRUCTION MATERIALS

- a. Any necessary construction materials needed will be obtained locally from a private source and hauled to the location on existing roads.
- b. No construction or surfacing materials will be taken from Federal / Indian lands.

# 7. METHODS FOR HANDLING WASTE DISPOSAL

- a. Rather than utilizing a "mud pit" on each drilling location, we will be utilizing one large "remote sump" pit per approximately 4-6 wells drilled to hold the drilled solids and drilling fluids required during the drilling of those 4 wells. This remote sump will be centrally located on one of the drilling locations. Three sides of the reserve pit will be fenced within 24 hours after completion of construction and the fourth side within 24 hours after drilling operations cease with four strands of barbed wire, or woven wire topped with barbed wire to a height of not less than four feet. The fence will be kept in good repair while the pit is drying.
- b. As the majority of each well is expected to be air drilled, a small reserve "blooie" pit will be constructed with a minimum of one-half the total depth below the original ground surface on the lowest point within the pit. The pit will not be lined unless conditions encountered during construction warrant it or if deemed necessary by the DOGM Representative during pre-site inspection. Three sides of the reserve pit will be fenced within 24 hours after completion of construction and the fourth side within 24 hours after drilling operations cease with four strands of barbed wire, or woven wire topped with barbed wire to a height of not less than four feet. The fence will be kept in good repair while the pit is drying.
- Following drilling, the liquid waste will be evaporated from any pit and the pit backfilled and returned to natural grade. No liquid hydrocarbons will be discharged to the reserve pit or location.
- c. In the event that wellbore fluids are produced, any oil will be retained in tanks until sold and any water produced will be retained until its quality can be determined. The quality and quantity of the water will determine the method of disposal.
- d. Trash will be contained in a portable metal container and will be hauled from location periodically and disposed of at an approved disposal site. Chemical toilets will be placed on location and sewage will be disposed of at an appropriate disposal site.

# 8. ANCILLARY FACILITIES

e. We anticipate no need for ancillary facilities with the exception of a trailer to be located on the drill site.

# 9. WELLSITE LAYOUT

- Gordon Creek, LLC. has reduced to surface lease size (area stripped and levelled) for this
  location to the smallest lease size possible to accommodate the required drilling rig and support
  equipment.
- b. Any available topsoil will be removed from the location and stockpiled. The location of the rig, mud tanks, reserve and berm pits and all other drilling support equipment will be located as per common oilfield rig layouts.
- a. A blooie pit will be located 100' from the drill hole. A line will be placed on the surface from the center hole to the blooie pit. The blooie pit will not be lined, but will be fenced on four sides to protect livestock/wildlife.
- b. Access to the well pad will be as shown on the Civil Location Survey Plat for the well.
- c. Natural runoff will be diverted around the well pad.

# 10. PLANS FOR RESTORATION OF SURFACE

- a. All surface areas not required for producing operations will be graded to as near original condition as possible and contoured to minimize possible erosion.
- b. Available topsoil will be stockpiled and will be evenly distributed over the disturbed areas and the area will be reseeded as prescribed by the landowner.
- c. Pits and any other area that would present a hazard to wildlife or livestock will be fenced off when the rig is released and removed.
- d. Rehabilitation will commence following completion of the well. Rat and mouse holes will be filled in immediately upon release of the drilling rig from the location. If the well site is to be abandoned, all disturbed areas will be re-contoured to the natural terrain found prior to location construction.

# 11. SURFACE OWNERSHIP

a. The well site and access road are on and across lands owned by Mark and Jim Jacobs, with whom we have a signed surface use agreement in place. The operator shall contact the landowner and the Division of Oil, Gas and Mining 48 hours prior to beginning construction activities.

# 12. OTHER INFORMATION

- a. The primary surface use is wildlife habitat and/or cattle grazing. The nearest dwelling is approximately 13.5 miles east (Price, Utah).
- b. If there is snow on the ground when construction begins, it will be removed before the soil is disturbed and piled downhill from the topsoil stockpile location.

- c. The back-slope and fore-slope will be constructed no steeper than 4:1.
- d. All equipment and vehicles will be confined to the access road and well pad.
- e. A complete copy of the approved Application for Permit to Drill (APD,) including all conditions and stipulations shall be on the well-site during construction and drilling operations.

There will be no deviation from the proposed drilling and/or workover program without prior approval from the Division of Oil, Gas & Mining.

# 13. COMPANY REPRESENTATIVE

Barry Brumwell, C.E.T.
Vice President, Operations
Gordon Creek LLC., a wholly owned subsidiary of
Thunderbird Energy Corp.
#550, 1010 – 1<sup>st</sup> Street S.W.
Calgary, Alberta, Canada
(403) 453-1608 (office)
(403) 818-0696 (mobile)
bbrumwell@thunderbirdenergy.com

# 14. CERTIFICATION

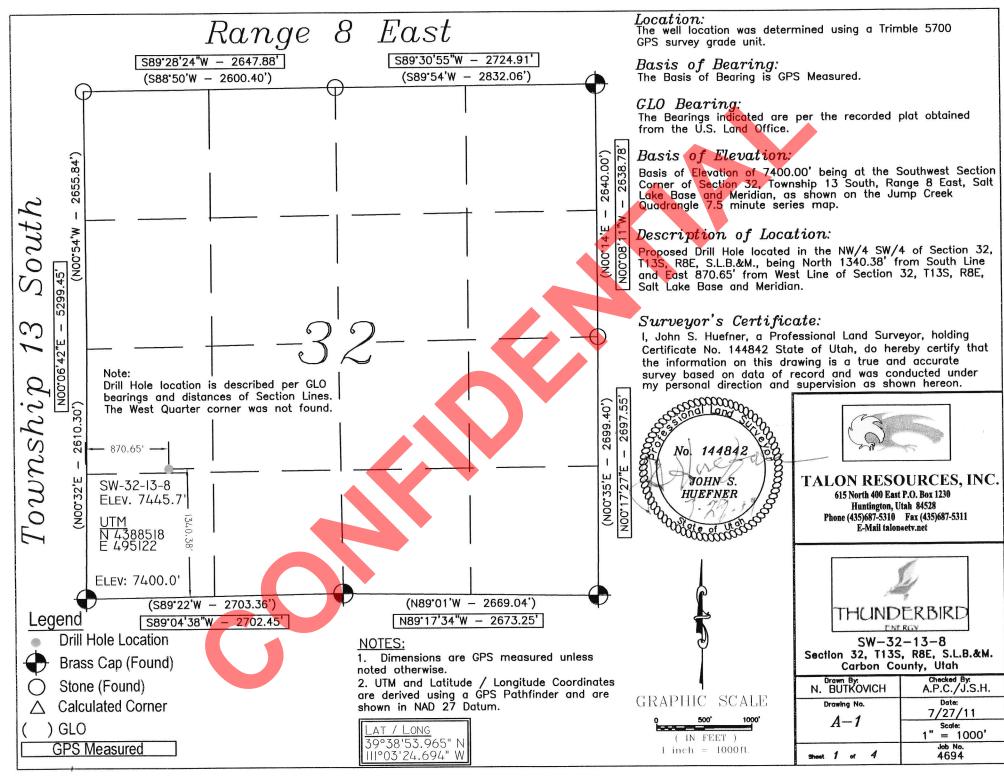
I hereby certify that I, or persons under my direct supervision have inspected the proposed drill site and access route; that I am familiar with the conditions which presently exist; that the statements made in this plan are, to the best of my knowledge, true and correct, and that the work associated with the operations proposed herein will be performed by Gordon Creek, LLC. and its subcontractors in conformity with this plan and the terms and conditions under which it is approved.

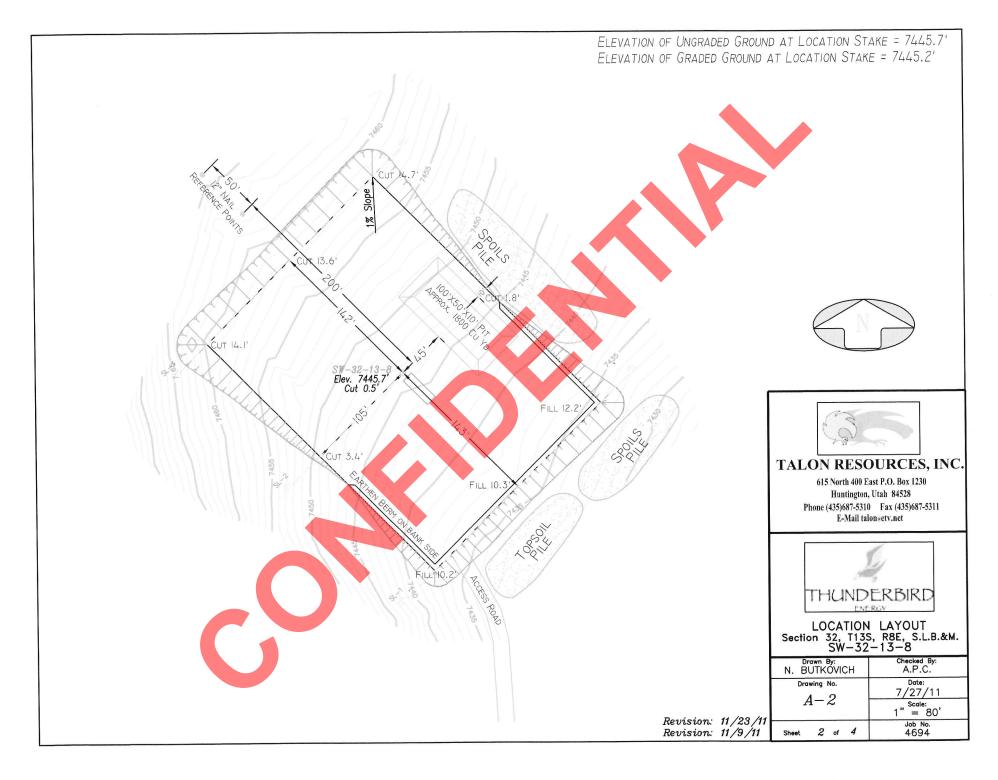
DATE

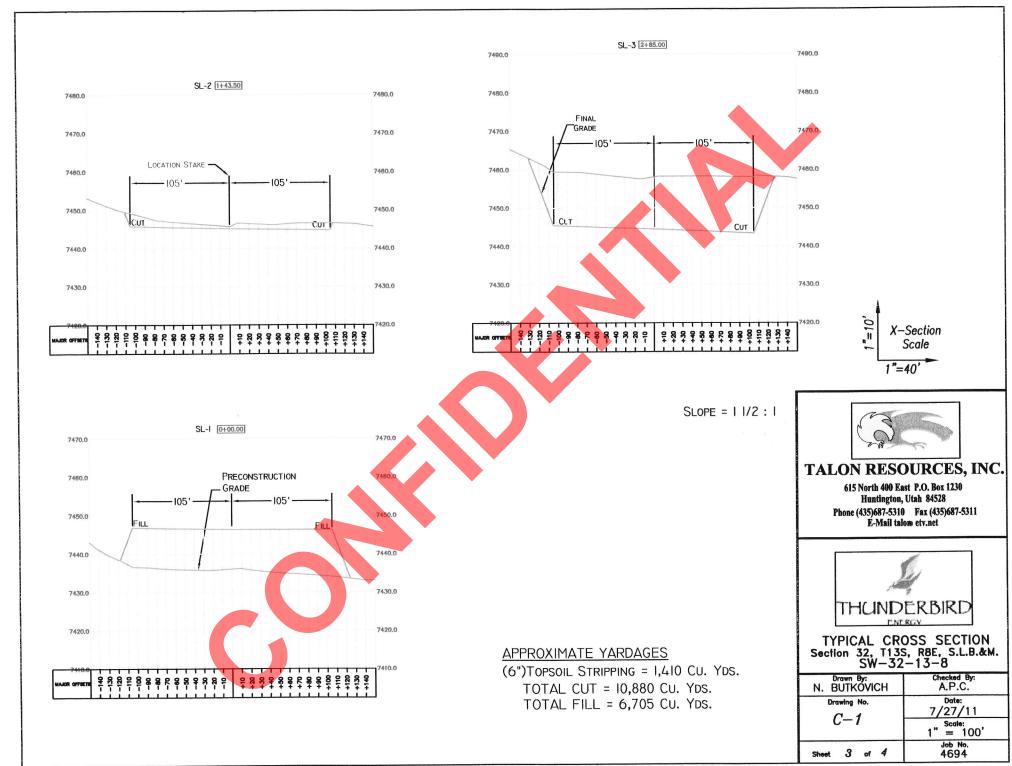
Barry Brumwell, C.E.T.

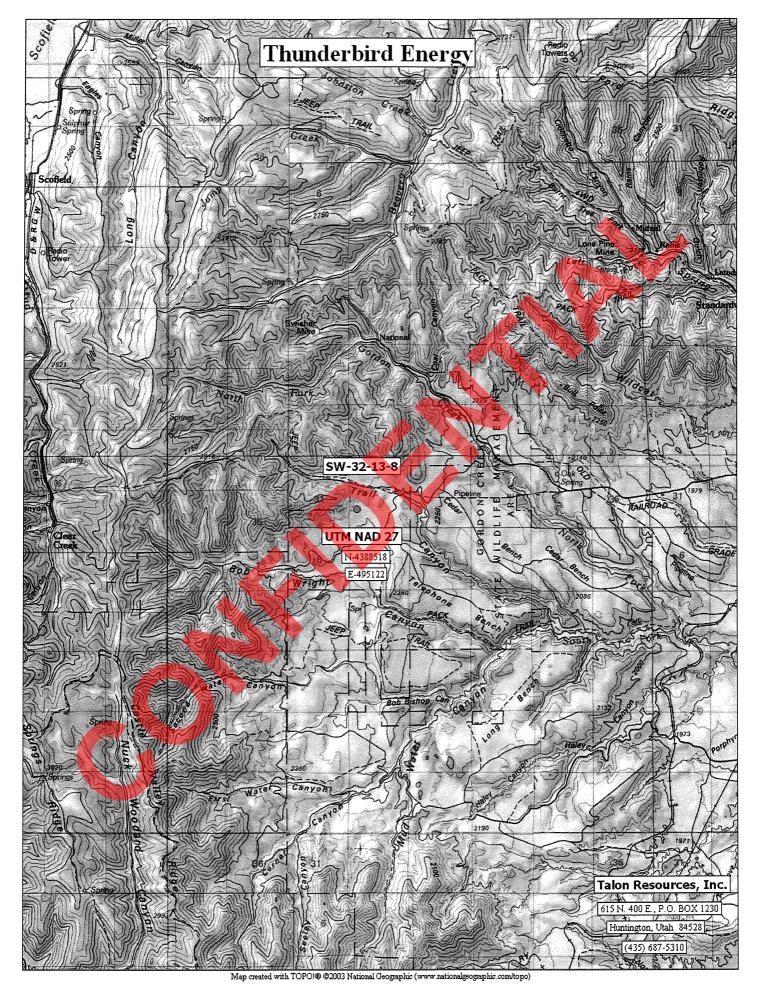
Vice President, Operations

Gordon Creek LLC. / Thunderbird Energy Inc.











October 29, 2011

Utah Division of Oil, Gas and Mining 1594 West North Temple, Suite 1210 Box 145801 Salt Lake City, Utah 84114-5801

Re: Affidavit of status of the Jacob Family Surface Use Agreement

Township 13 South, Range 8 East, SLM

Section 31: N ½ N ½ Section 32: All

Township 14 South, Range 8 East, SLM

Section 5: N 1/2 N 1/2

All in Carbon County, Utah

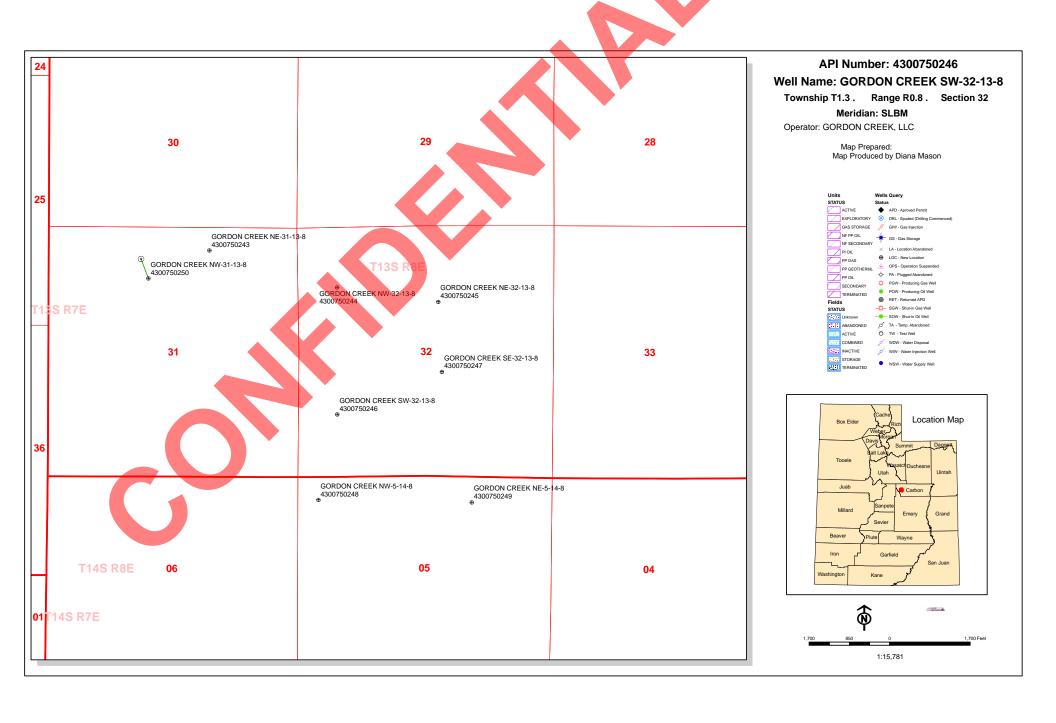
This letter may serve as notice that on the 22<sup>nd</sup> of October, 2011 we obtained a signed agreement from the Jacob Family regarding surface use fees and compensation amounts for our planned activities on their lands were agreed to. Full compensation has been paid out to the Jacobs Family, therefore we have executed the Surface Use Agreement for the above noted lands and its requirements in full.

Sincerely

Barry Brumwell

Vice President of Operations

Thunderbird Energy / Gordon Creek, LLC.





September 28<sup>th</sup>, 2011

Utah Division of Oil, Gas and Mining 1594 West North Temple, Suite 1210 Box 145801 Salt Lake City, Utah 84114-5801

To Whom It May Concern;

Re: LOCATION EXEMPTION LETTER - Gordon Creek SW-32-13S-8E

In reference to the State of Utah Oil & Gas Conservation Rule # R649-3-2, the proposed well GORDON CREEK SW-32-13S-8E is an exception to the rule due to the topography of the 40 acre Section that the well is located in.

There are no additional lease owners with 460' of the proposed location.

If you have any further questions regarding this matter, please don't hesitate to contact me by telephone at (403) 453-1608 or via email at <a href="mailto:bbrumwell@thunderbirdenergy.com">bbrumwell@thunderbirdenergy.com</a>.

Respectfully;

Barry Brumwell, C.E.T.

**Vice President of Operations** 

Thunderbird Energy

Gordon Creek, LLC.

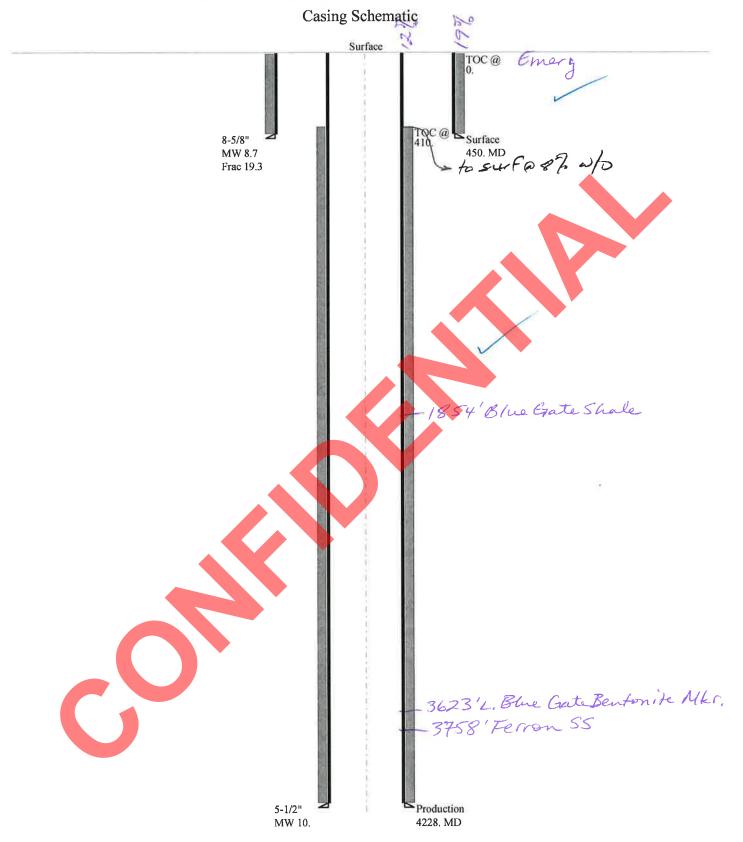
# BOPE REVIEW GORDON CREEK, LLC GORDON CREEK SW-32-13-8 43007502460000

XX/ II X/					_		_		
Well Name		GORDON CR	REE	K, LLC GOR	DC	ON CREEK SV	V-3	2-13-8 43007	
String		SURF	<u>  </u>	PROD	Ш		1		
Casing Size(")		8.625	5	5.500					
Setting Depth (TVD)		450	4	1228					
Previous Shoe Setting Dept	th (TVD)	0	1	450	Ī		Ī		
Max Mud Weight (ppg)		8.7		10.0	T		Ī		
BOPE Proposed (psi)		500	3	3000	T		Ī		
Casing Internal Yield (psi)		2950	   	7740	Ti		Ť		
Operators Max Anticipate	d Pressure (psi)	1700	7	7.7	ĺ		Ī		•
Calculations	SUR	F String			_	8.62	25	"	
Max BHP (psi)		.052*Setti	ing	Depth*M	W	204	ī		
							=	BOPE Ade	quate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max	x BHP-(0.12*	*Se	tting Dept	h)=	150	╗	YES	air drill
MASP (Gas/Mud) (psi)	Max	x BHP-(0.22*	*Se	tting Dept	h)=	105	╡	YES	ОК
					_	1	=		Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP22*(Setting D	epth - Previo	us S	Shoe Depti	h)=	105	╗	NO	OK
Required Casing/BOPE Te	est Pressure=					450	Ħ	psi	
*Max Pressure Allowed @					_	<u> </u>			mes 1psi/ft frac gradient
Max Tressure Anoweu (a)	1 Tevious Casing Shot				_	0	븬	psi Assu	into ipsi/it itae gradient
Calculations	PRO	D String				5.50	00	11	
Max BHP (psi)		.052*Setti	ing	Depth*M	W=	2199	Ī		
								BOPE Ade	quate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max	x BHP-(0.12*	*Se	tting Dept	h)=	1692		YES	air drill
MASP (Gas/Mud) (psi)	Max	x BHP-(0.22*	*Se	tting Dept	h)=	1269	Ħ	YES	OK
							=		Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP22*(Setting D	epth - Previo	us S	Shoe Depti	h)=	1368	╗	NO	Reasonable
Required Casing/BOPE Te	est Pressure=					3000	≓	psi	,
*Max Pressure Allowed @			_		_	+	≓		mes 1psi/ft frac gradient
	Trevious cusing stave				_	450	_	Por 11000	The State of the S
Calculations	S	tring						"	
Max BHP (psi)		.052*Setti	ing	Depth*M	W		ī		
							=	BOPE Ade	quate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max	x BHP-(0.12*	*Se	tting Dept	h)=		=	NO	
MASP (Gas/Mud) (psi)	Max	x BHP-(0.22*	*Se	tting Dept	h)=		╗	NO	ĺ
						<u>'</u>	=	*Can Full I	Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP22*(Setting D	epth - Previo	us S	Shoe Depti	h)=	1	=	NO	i
Required Casing/BOPE To	st Pressure=				_		Ħ	psi	
*Max Pressure Allowed @	Previous Casing Shoe=						Ħ	psi *Assu	mes 1psi/ft frac gradient
						12	_		
Calculations	S	tring						"	
Max BHP (psi)		.052*Setti	ing	Depth*M	W				
								BOPE Ade	quate For Drilling And Setting Casing at Depth?
MASP (Gas) (psi)	Max	x BHP-(0.12*	*Se	tting Dept	h)=	-		NO	
MASP (Gas/Mud) (psi)	Max	x BHP-(0.22*	*Se	tting Dept	h)=			NO	
								*Can Full I	Expected Pressure Be Held At Previous Shoe?
Pressure At Previous Shoe	Max BHP22*(Setting D	epth - Previou	us S	Shoe Dept	h)=	=		NO	
Required Casing/BOPE Te	est Pressure=						7	psi	
1						1			

\*Max Pressure Allowed @ Previous Casing Shoe= psi \*Assumes 1psi/ft frac gradient



# 43007502460000 GORDON CREEK SW-32-13-8



Well name:

43007502460000 GORDON CREEK SW-32-13-8

Operator:

**GORDON CREEK, LLC** 

String type:

Surface

**CARBON** Location:

Project ID: 43-007-50246

Design parameters:

Collapse

Mud weight:

8.700 ppg Design is based on evacuated pipe.

COUNTY

Minimum design factors:

Collapse: Design factor

1.125

**Environment:** H2S considered?

Surface temperature: Bottom hole temperature:

74 °F 80 °F 1.40 °F/100ft Temperature gradient: Minimum section length: 100 ft

**Burst:** 

Design factor

1.00

1.80 (J)

1.70 (J)

1.60 (J) 1.50 (J)

1.50 (B)

True Vert

Cement top:

Surface

No

**Burst** 

Run

Max anticipated surface

Segment

pressure: Internal gradient: Calculated BHP

396 psi 0.120 psi/ft 450 psi

Nominal

14/-1-64

No backup mud specified.

C:--

Tension:

8 Round STC: 8 Round LTC: **Buttress:** 

> Premium: Body yield:

Tension is based on air weight. Neutral point: 391 ft Non-directional string.

Re subsequent strings:

Next setting depth: Next mud weight: Next setting BHP:

Measured

Donth

4,228 ft 10.000 ppg 2,196 psi 19.250 ppg 450 ft

450 psi

Fracture mud wt: Fracture depth: Injection pressure:

> Drift Est. Diameter Coot

<b>Seq</b>	(ft) 450	(in) 8.625	(lbs/ft) 24.00	J-55	ST&C	(ft) 450	(ft) 450	(in) 7.972	(\$) 2317	
Run Seq	Collapse Load (psi) 203	Collapse Strength (psi) 1370	Collapse Design Factor 6.736	Burst Load (psi) 450	Burst Strength (psi) 2950	Burst Design Factor 6.56	Tension Load (kips) 10.8	Tension Strength (kips) 244	Tension Design Factor 22.59 J	

End

Prepared

by:

Helen Sadik-Macdonald

Div of Oil, Gas & Mining

Phone: 801 538-5357 FAX: 801-359-3940

Date: October 5,2011 Salt Lake City, Utah

Remarks:

Collapse is based on a vertical depth of 450 ft, a mud weight of 8.7 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.

Well name:

43007502460000 GORDON CREEK SW-32-13-8

Operator:

**GORDON CREEK, LLC** 

String type:

Production

Project ID:

Location:

**CARBON** COUNTY 43-007-50246

Design parameters: Minimum design factors:

Collapse

Mud weight: 10.000 ppg Design is based on evacuated pipe.

Collapse:

Design factor 1.125 **Environment:** 

H2S considered? Surface temperature: No 74 °F

Bottom hole temperature: Temperature gradient:

133 °F 1.40 °F/100ft

Minimum section length:

100 ft

Burst:

Design factor

1.00

Cement top:

410 ft

**Burst** 

Max anticipated surface

No backup mud specified.

pressure: Internal gradient: Calculated BHP

1,266 psi 0.220 psi/ft

2,196 psi

Premium:

Body yield:

**Tension:** 8 Round STC:

1.80 (J) 1.80 (J) 8 Round LTC: **Buttress:** 1.60 (J)

1.50 (J) 1.60 (B)

Tension is based on air weight. Neutral point: 3,587 ft Non-directional string.

Run	Segment		Nominal		End	True Vert	Measured	Drift	Est.	
Seq	Length	Size	Weight	Grade	Finish	Depth	Depth	Diameter	Cost	
	(ft)	(in)	(lbs/ft)			(ft)	(ft)	(in)	(\$)	
1	4228	5.5	17.00	N-80	LT&C	4228	4228	4.767	23831	
Run	Collapse	Collapse	Collapse	Burst	Burst	Burst	Tension	Tension	Tension	
Seq	Load	Strength	Design	Load	Strength	Design	Load	Strength	Design	
•	(psi)	(psi)	Factor	(psi)	(psi)	Factor	(kips)	(kips)	Factor	
1	2196	6290	2.864	2196	7740	3.52	71.9	348	4.84 J	

Prepared

Helen Sadik-Macdonald

Div of Oil, Gas & Mining

Phone: 801 538-5357 FAX: 801-359-3940

Date: October 5,2011 Salt Lake City, Utah

Collapse is based on a vertical depth of 4228 ft, a mud weight of 10 ppg. The casing is considered to be evacuated for collapse purposes. Collapse strength is based on the Westcott, Dunlop & Kemler method of biaxial correction for tension.

Burst strength is not adjusted for tension.



State of Utah

GARY R. HERBERT Governor

GREG BELL
Lieutenant
Governor

Office of the Governor PUBLIC LANDS POLICY COORDINATION

JOHN HARJA Director

October 17, 2011

Diana Mason
Petroleum Specialist
Department of Natural Resources, Division of Oil Gas and Mining
1594 West North Temple, Suite 1210
P.O. Box 145801
Salt Lake City, UT 84114-5801

Subject: Application for Permit to Drill; Gordon Creek

Carbon County; Section 32, Township 13.0S, Range 8.0E

RDCC Project Number 28880

Dear Ms. Mason:

The State of Utah, through the Public Lands Policy Coordination Office (PLPCO), has reviewed this project. Utah Code (Section 63J-4-601, et. seq.) designates PLPCO as the entity responsible to coordinate the review of technical and policy actions that may affect the physical resources of the state, and to facilitate the exchange of information on those actions among federal, state, and local government agencies. As part of this process, PLPCO makes use of the Resource Development Coordinating Committee (RDCC). The RDCC includes representatives from the state agencies that are generally involved or impacted by public lands management.

# **Division of Air Quality**

Because fugitive dust may be generated during soil disturbance, the proposed project will be subject to Air Quality rule R307-205-5 for Fugitive Dust. These rules apply to construction activities that disturb an area greater than 1/4 acre in size. A permit, known as an Approval Order, is not required from the Executive Secretary of the Air Quality Board, but steps need to be taken to minimize fugitive dust, such as watering and/or chemical stabilization, providing vegetative or synthetic cover or windbreaks. A copy of the rules can be found at <a href="https://www.rules.utah.gov/publicat/code/r307/r307.htm">www.rules.utah.gov/publicat/code/r307/r307.htm</a>.

The state encourages the use of Best Management Processes (BMP s) in protecting air quality in Utah. The state recommends the following BMP s as standard operating procedures:

Diana Mason October 17, 2011 Page -2-

- Emission Standards for Stationary Internal Combustion Engines of 2 g/bhp-hr of NOx for engines less than 300 HP (Tier 3) and 1 g/bhp-hr of NOx for engines over 300 HP (Tier 3).
- 2) No or low bleed controllers for Pneumatic Pumps, Actuators and other Pneumatic devices.
- Green completion or controlled VOC emissions methods with 90% efficiency for Oil or Gas Atmospheric Storage Tanks, VOC Venting controls or flaring. Glycol Dehydration and Amine Units Units, VOC Venting controls or flaring, Well Completion, Re-Completion, Venting, and Planned Blowdown Emissions.

If compressors or pump stations are constructed at the site a permit application, known as a Notice of Intent (NOI), should be submitted to the Executive Secretary at the Utah Division of Air Quality at 150 N. 1950 West, Salt Lake City, Utah, 84116 for review according to R307-401: Permit: Notice of Intent and Approval Order, of the Utah Air Quality Rules. A copy of the rules may be found at www.rules.utah.gov/publicat/code/r307/r307.htm.

The State of Utah appreciates the opportunity to review this proposal and we look forward to working with you on future projects. Please direct any other written questions regarding this correspondence to the Public Lands Policy Coordination Office at the address below, or call Judy Edwards at (801) 537-9023.

Sincerely,

John Harja Director

# **ON-SITE PREDRILL EVALUATION**

# Utah Division of Oil, Gas and Mining

**Operator** GORDON CREEK, LLC

Well Name GORDON CREEK SW-32-13-8

API Number 43007502460000 APD No 4698 Field/Unit WILDCAT

**Location: 1/4,1/4** NWSW **Sec** 32 **Tw** 13.0S **Rng** 8.0E 1340 FSL 871 FWL

GPS Coord (UTM) Surface Owner Mark Jacobs

# **Participants**

M. Jones (UDOGM), B. Brumwell, S. Lessar, L. Williams, (Thunderbird), A. Childs, M. Childs (Talon), Jim Jacobs (surface ownership).

# Regional/Local Setting & Topography

This proposed well is staked west of the Consumers area in Carbon County, Utah. The site is south and west of the Gordon Creek Compressor site approximately .5 miles, owned and operated by Gordon Creek, LLC or Thunderbird Energy. The immediate setting is relatively flat, slightly sloped to the southeast and dominated by sagebrush with pinion juniper trees in the surrounding environment. To the direct west the Wasatch Platuea rises dramatically.

# Surface Use Plan

**Current Surface Use** 

Grazing

Wildlfe Habitat

New Road Miles Well Pad Src Const Material Surface Formation

0.33 Width 210 Length 285 Onsite

**Ancillary Facilities** N

# **Waste Management Plan Adequate?**

# **Environmental Parameters**

Affected Floodplains and/or Wetlands N

Flora / Fauna

sagebrush, grasses, pinion juniper.

Soil Type and Characteristics

clay loam

**Erosion Issues N** 

**Sedimentation Issues** N

Site Stability Issues N

# **Drainage Diverson Required?** Y

Divert drainages around and away from location and access road.

# Berm Required? Y

Berm location to prevent spills from leaving location.

11/30/2011 Page 1

# **Erosion Sedimentation Control Required?** N

Paleo Survey Run? N Paleo Potental Observed? N Cultural Survey Run? N Cultural Resources? N

# **Reserve Pit**

Site-Specific Factors	Site Ranl	king	
Distance to Groundwater (feet)	>200	0	
Distance to Surface Water (feet)	>1000	0	
Dist. Nearest Municipal Well (ft)	>5280	0	
Distance to Other Wells (feet)	>1320	0	
Native Soil Type	Mod permeability	10	
Fluid Type	Fresh Water	5	
<b>Drill Cuttings</b>	Normal Rock	0	
<b>Annual Precipitation (inches)</b>	10 to 20	5	
Affected Populations			
<b>Presence Nearby Utility Conduits</b>	Not Present	0	
	Final Score	20	1 Sensitivity Level

# **Characteristics / Requirements**

Dugout earthen 100 x 50 x 10.

Closed Loop Mud Required? N Liner Required? Y Liner Thickness 16 Pit Underlayment Required? N

# **Other Observations / Comments**

Mark Jones 10/4/2011
Evaluator Date / Time

11/30/2011 Page 2

# **Application for Permit to Drill Statement of Basis**

11/30/2011 Utah Division of Oil, Gas and Mining

Page 1

APD No	API WellNo	Status	Well Type	Surf Owner CBM
4698	43007502460000	LOCKED	GW	P No
Operator	GORDON CREEK, LL	.C	Surface Owner-APD	Mark Jacobs
Well Name	GORDON CREEK SW	7-32-13-8	Unit	
Field	WILDCAT		Type of Work	DRILL
Location	NWSW 32 13S 8	E S 1340 FSL	871 FWL GPS Coord (UTM)	495051E 4388716N

**Geologic Statement of Basis** 

Tunderbird Energy proposes to drill the well to a total depth of 4,228' and plans to set surface casing from 0'-450'. The surface string will be drilled using air unless hole conditions require the need to "mud-up" with water and gel chem. Within a 10,000 foot radius of the center of section 32, there are 44 filed water rights, however, only one is a subsurface groundwater right. Gordon Creek, LLC, has applied to drill a water-well to produce 4 acre-feet of water for oil & gas field operations. This location is within a small north-south trending graben valley. The poorly permeable silty soil has been formed from the erosion of the Upper Blue Gate Member of the Mancos Shale. Several units of the Emery Sandstone Member of the Mancos Shale are present at the near surface or within the subsurface, these strata should be included within the interval to be protected by the surface casing string. The operator should be informed of the likelihood of these units being water saturated and to respond to protecting these zones by extending the surface casing as necessary. Proposed surface casing and cement should adequately isolate any shallow zones containing water.

Ammon McDonald
APD Evaluator

10/13/2011
Date / Time

# **Surface Statement of Basis**

This proposed well is staked west of the Consumers area in Carbon County, Utah. The site is south and west of the Gordon Creek Compressor site approximately .5 miles, owned and operated by Gordon Creek, LLC or Thunderbird Energy. The immediate setting is relatively flat, slightly sloped to the southeast and dominated by sagebrush with pinion juniper trees in the surrounding environment. To the direct west the Wasatch Platuea rises dramatically. The location should be bermed to prevent spills from leaving the confines of the pad. Fencing around the reserve pit will be necessary once the well is drilled to prevent wildlife and livestock from becoming a problem. Drainages should be diverted around and away from wellpad and access road. A synthetic liner of 16 mils (minimum) should be utilized in the reserve pit. There may be some disturbance during construction activities that are outside of the permitted pad boundaries to create cut and fill slopes, to create diversion ditches as discussed during the pre-site meetings, and to store topsoil and spoils as indicated on the drawings. Any of this activity should be kept to a very minimum. All other surface operations must remain within permitted pad boundaries.

Mark Jones 10/4/2011
Onsite Evaluator Date / Time

# **Conditions of Approval / Application for Permit to Drill**

CategoryConditionPitsA synthetic liner with a minimum thickness of 16 mils shall be properly installed and maintained in the reserve pit.SurfaceThe well site shall be bermed to prevent fluids from leaving the pad.SurfaceDrainages adjacent to the proposed pad shall be diverted around the location. Specifically route run-off from the north and

west side of the pad around the location.

Surface The reserve pit shall be fenced upon completion of drilling operations. Surface Surface operations must remain within permitted pad boundaries.

RECEIVED: November 30, 2011

# **WORKSHEET** APPLICATION FOR PERMIT TO DRILL

**APD RECEIVED:** 9/26/2011

WELL NAME: GORDON CREEK SW-32-13-8 **OPERATOR:** GORDON CREEK, LLC (N3245)

**CONTACT:** Barry Brumwell

PROPOSED LOCATION: NWSW 32 130S 080E

**SURFACE: 1340 FSL 0871 FWL** 

**BOTTOM:** 1340 FSL 0871 FWL

**COUNTY: CARBON LATITUDE:** 39.64822

UTM SURF EASTINGS: 495051.00

FIELD NAME: WILDCAT LEASE TYPE: 4 - Fee

**LEASE NUMBER:** Sec 31+32 Fee Lease

**SURFACE OWNER:** 4 - Fee

API NO. ASSIGNED: 43007502460000

**PHONE NUMBER:** 403 453-1608

**Permit Tech Review:** 

**Engineering Review:** 

Geology Review:

**LONGITUDE:** -111.05768 NORTHINGS: 4388716.00

PROPOSED PRODUCING FORMATION(S): FERRON SANDSTONE

COALBED METHANE: NO

### **RECEIVED AND/OR REVIEWED:**

✓ PLAT

Bond: STATE - RLB0010790

**Potash** 

Oil Shale 190-5

Oil Shale 190-3

Oil Shale 190-13

**Water Permit:** 91-5193

**RDCC Review: 2011-11-23 0**0:00:00.0

✓ Fee Surface Agreement

Intent to Commingle

**Commingling Approved** 

**LOCATION AND SITING:** 

R649-2-3.

Unit:

R649-3-2. General

R649-3-3. Exception

**Drilling Unit** 

Board Cause No: R649-3-3

**Effective Date:** 

Siting:

R649-3-11. Directional Drill

**Comments:** Presite Completed

Stipulations: 1 - Exception Location - dmason

2 - Exception Education - dma: 5 - Statement of Basis - bhill 21 - RDCC - dmason 23 - Spacing - dmason 27 - Other - bhill

API Well No: 43007502460000



# State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER
Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA
Division Director

# **Permit To Drill**

\*\*\*\*\*

Well Name: GORDON CREEK SW-32-13-8

API Well Number: 43007502460000 Lease Number: Sec 31+32 Fee Lease Surface Owner: FEE (PRIVATE)

**Approval Date:** 11/30/2011

# **Issued to:**

GORDON CREEK, LLC, 1179 E Main #345, Price, UT 84501

# **Authority:**

Pursuant to Utah Code Ann. §40-6-1 et seq., and Utah Administrative Code R649-3-1 et seq., the Utah Division of Oil, Gas and Mining issues conditions of approval, and permit to drill the listed well. This permit is issued in accordance with the requirements of R649-3-3. The expected producing formation or pool is the FERRON SANDSTONE Formation(s), completion into any other zones will require filing a Sundry Notice (Form 9). Completion and commingling of more than one pool will require approval in accordance with R649-3-22.

# **Duration:**

This approval shall expire one year from the above date unless substantial and continuous operation is underway, or a request for extension is made prior to the expiration date

# **Exception Location:**

Appropriate information has been submitted to DOGM and administrative approval of the requested exception location is hereby granted.

### General:

Compliance with the requirements of Utah Admin. R. 649-1 et seq., the Oil and Gas Conservation General Rules, and the applicable terms and provisions of the approved Application for permit to drill.

# **Conditions of Approval:**

The Application for Permit to Drill has been forwarded to the Resource Development Coordinating Committee for review of this action. The operator will be required to comply with any applicable recommendations resulting from this review. (See attached)

This proposed well is located in an area for which drilling units (well spacing patterns) have not been established through an order of the Board of Oil, Gas and Mining (the "Board"). In order to avoid the possibility of waste or injury to correlative rights, the operator is requested, once the well has been drilled, completed, and has produced, to analyze geological and engineering data generated therefrom, as well as any similar data from surrounding areas if available. As soon as is practicable after completion of its analysis, and if the analysis suggests an area larger than the quarter-quarter section upon which the well is located is being drained, the operator is requested to seek an appropriate order from the Board establishing drilling and spacing units in conformance with such analysis by filing a Request for Agency Action with the Board.

API Well No: 43007502460000

Compliance with the Conditions of Approval/Application for Permit to Drill outlined in the Statement of Basis (copy attached).

Surface casing shall be extended to a sufficient depth in order to contain water flows as seen in the Gordon Creek ST SE-7-14-8 well.

# **Additional Approvals:**

The operator is required to obtain approval from the Division of Oil, Gas and mining before performing any of the following actions during the drilling of this well:

- Any changes to the approved drilling plan contact Dustin Doucet
- Significant plug back of the well contact Dustin Doucet
- Plug and abandonment of the well contact Dustin Doucet

# **Notification Requirements:**

The operator is required to notify the Division of Oil, Gas and Mining of the following actions during drilling of this well:

- Within 24 hours following the spudding of the well contact Carol Daniels OR
- submit an electronic sundry notice (pre-registration required) via the Utah Oil & Gas website at http://oilgas.ogm.utah.gov
- 24 hours prior to testing blowout prevention equipment contact Dan Jarvis
- 24 hours prior to cementing or testing casing contact Dan Jarvis
- Within 24 hours of making any emergency changes to the approved drilling program contact Dustin Doucet
- 24 hours prior to commencing operations to plug and abandon the well contact Dan Jarvis

# **Contact Information:**

The following are Division of Oil, Gas and Mining contacts and their telephone numbers (please leave a voicemail message if the person is not available to take the call):

- Carol Daniels 801-538-5284 office
- Dustin Doucet 801-538-5281 office

801-733-0983 - after office hours

• Dan Jarvis 801-538-5338 - office

801-231-8956 - after office hours

# **Reporting Requirements:**

All reports, forms and submittals as required by the Utah Oil and Gas Conservation General Rules will be promptly filed with the Division of Oil, Gas and Mining, including but not limited to:

- Entity Action Form (Form 6) due within 5 days of spudding the well
- Monthly Status Report (Form 9) due by 5th day of the following calendar month
- Requests to Change Plans (Form 9) due prior to implementation
- Written Notice of Emergency Changes (Form 9) due within 5 days
- Notice of Operations Suspension or Resumption (Form 9) due prior to implementation
- Report of Water Encountered (Form 7) due within 30 days after completion
- Well Completion Report (Form 8) due within 30 days after completion or plugging

API Well No: 43007502460000

Арргочеи ду:

For John Rogers Associate Director, Oil & Gas

FORM 9

STATE OF UTAH

DEPARTMENT OF NATURAL RESOURCES
DIVISION OF OIL GAS AND MINING

	DIVISION OF OIL, GAS AND MI		5. LEASE DESIGNATION AND SERIAL NUMBER: SEC 31 + 32 FEE LEASE
SUNDR	Y NOTICES AND REPORT	S ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
Do not use this form for proposals to drill drill horizontal	new wells, significantly deepen existing wells below cu laterals. Use APPLICATION FOR PERMIT TO DRILL	rrent bottom-hole depth, reenter plugged wells, or to form for such proposals.	7. UNIT or CA AGREEMENT NAME
1. TYPE OF WELL OIL WELL	. GAS WELL 7 OTHER		8. WELL NAME and NUMBER GORDON CREEK SW-32-13-8
2. NAME OF OPERATOR:			9. API NUMBER: 4300750246
GORDON CREEK, LLC.  3. ADDRESS OF OPERATOR:		PHONE NUMBER:	10. FIELD AND POOL, OR WILDCAT
	PRICE BINDE UT 100	.84501 (435) 820-1489	WILDCAT
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1340			COUNTY CARBON
QTR/QTR, SECTION, TOWNSHIP, RA	NGE, MERIDIAN: NWSW 32 13 8	3 S	STATE UTAH
11. CHECK APP	ROPRIATE BOXES TO INDICAT	TE NATURE OF NOTICE, REPO	ORT, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
NOTICE OF INTENT	ACIDIZE	DEEPEN	REPERFORATE CURRENT FORMATION
(Submit in Duplicate)	ALTER CASING	FRACTURE TREAT	SIDETRACK TO REPAIR WELL
Approximate date work will start:	CASING REPAIR	MEM CONSTRUCTION	TEMPORARILY ABANDON
	CHANGE TO PREVIOUS PLANS	OPERATOR CHANGE	U TUBING REPAIR
	CHANGE TUBING	PLUG AND ABANDON	VENT OR FLARE
SUBSEQUENT REPORT (Submit Original Form Only)	CHANGE WELL NAME	PLUG BACK	WATER DISPOSAL
Date of work completion:	CHANGE WELL STATUS	PRODUCTION (START/RESUME)	WATER SHUT-OFF
	COMMINGLE PRODUCING FORMATIONS	RECLAMATION OF WELL SITE	✓ OTHER: SPUD NOTICE
1/12/2012	CONVERT WELL TYPE	RECOMPLETE - DIFFERENT FORMATION	1
	OMPLETED OPERATIONS. Clearly show all (		
		:	
BARRY E	BRUMWELL, C.E.T.	TITLE VICE PRESIDE	NT of OPERATIONS
NAME (PLEASE PRINT)	ZimaD	1/19/2012	
SIGNATURE	CWITCS (	DATE 1/19/2012	

(This space for State use only)

# STATE OF UTAH

DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS AND MINING

# **ENTITY ACTION FORM**

Operator:

GORDON CREEK, LLC.

Operator Account Number: N 3245

Address:

1179 EAST MAIN, #345

city PRICE

state UT

Phone Number: (435) 820-1489

Wall 1

API Number	Well	QQ	Sec	Twp	Rng	County	
4300750248	GORDON CREEK NW-5-14-8		NWNW	NWNW 5 14		8 <sub>&amp;</sub>	CARBON
Action Code	Current Entity Number	New Entity Number	S	Spud Date			ity Assignment ffective Date
А	99999	18385	1	/12/201	2	1/3	1112

Comments:

17" HOLE SPUDDED AT 12:30 HRS 1/12/2012 AND DRILLED TO 44'. 12.3

zip 84501

CEMENTED FULL LENGTH.

Well 2

API Number	Well	Name	QQ	Sec	Twp	Rng	County
4300750246	GORDON CREEK SW-32-13-8		NWSW	32	13 <sub>S</sub>	8 &	CARBON
Action Code	Current Entity Number	New Entity Number	Sı	Spud Date		Entity Assignmen Effective Date	
Α	99999	18386	1	/12/201	2	1/3	51/12

Comments: 17" HOLE SPUDDED AT 13:45 HRS 1/12/2012 AND DRILLED TO 41'.

CEMENTED FULL LENGTH.

Well 3

API Number	Well	Name	QQ	Sec	Twp	Rng	County
4300750249	GORDON CREEK N	NWNE	5	14 <sub>S</sub>	8 e	CARBON	
Action Code	Current Entity New Entity Number Number		S	pud Da	ate E		tity Assignment Effective Date
Α	99999	16387	1	12	2012	113	31 112

Comments:

17" HOLE SPUDDED AT 16:00 HRS 1/12/2012 AND DRILLED TO 36'. 12 3/4" PIPE SET CEMENTED FULL LENGTH.

FRST

# **ACTION CODES:**

- A Establish new entity for new well (single well only)
- B Add new well to existing entity (group or unit well)
- Re-assign well from one existing entity to another existing entity
- Re-assign well from one existing entity to a new entity
- E Other (Explain in 'comments' section)

RECEIVED

BARRY BRUMWELL, C.E.T.

Name (Please Print)

Signature

**VP of OPERATIONS** 

1/19/2012

Title

Date

JAN 1 9 2012 (5/2000)

Sundry Number: 23184 API Well Number: 43007502460000

STATE OF UTAH  DEPARTMENT OF NATURAL RESOURCES  DIVISION OF OIL, GAS, AND MINING			FORM 9
			5.LEASE DESIGNATION AND SERIAL NUMBER: FEE
SUNDRY NOTICES AND REPORTS ON WELLS			6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
Do not use this form for proposals to drill new wells, significantly deepen existing wells below current bottom-hole depth, reenter plugged wells, or to drill horizontal laterals. Use APPLICATION FOR PERMIT TO DRILL form for such proposals.			7.UNIT or CA AGREEMENT NAME:
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: GORDON CREEK SW-32-13-8
2. NAME OF OPERATOR: GORDON CREEK, LLC			9. API NUMBER: 43007502460000
<b>3. ADDRESS OF OPERATOR:</b> 1179 E Main #345 , Price, UT, 84501  403 453-1608 Ext			9. FIELD and POOL or WILDCAT: WILDCAT
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1340 FSL 0871 FWL QTR/QTR, SECTION, TOWNSHIP, RANGE, MERIDIAN: Qtr/Qtr: NWSW Section: 32 Township: 13.0S Range: 08.0E Meridian: S			COUNTY: CARBON
			STATE: UTAH
CHECK APPROPRIATE BOXES TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA			
TYPE OF SUBMISSION	TYPE OF ACTION		
NOTICE OF INTENT Approximate date work will start: 2/20/2012	ACIDIZE	ALTER CASING	CASING REPAIR
	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME
	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	NEW CONSTRUCTION
		PLUG AND ABANDON	PLUG BACK
SPUD REPORT Date of Spud:		RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION
		SIDETRACK TO REPAIR WELL	☐ TEMPORARY ABANDON
		VENT OR FLARE	☐ WATER DISPOSAL
DRILLING REPORT Report Date:	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION
	WILDCAT WELL DETERMINATION	OTHER	OTHER: Change Cement Blend
Our cementing contractor is unable to source the Cenospheres required for the prod csg cement blend approved for this well. We are therefore requesting approval to use a different cement blend. Its a combination of a high early cement w/ Gypsum-60 & Sodium Metasilicate to tie up free water & give a better comp strength. Its a 10.5#/gal Lead & 11.5#/gal tail. The previously approved 10.7#/gal Cenosphere slurry gave 906psi comp strength in 72 hours, the newly proposed blend lead is 350psi in 72 hours; the tail slurry (which covers the Ferron productive zone) is 1085psi in 72 hours. The new proposed slurry would add ~170 psi diff pressure over currently pumping pressures(calc using 1000' Tail cmt & Lead cmt to sfc). We proposed blend is very simular to what other Operators have run in the area with great success.			
NAME (PLEASE PRINT) Barry Brumwell	<b>PHONE NUMBER</b> 403 453-1608	TITLE Vice President-Operations	
SIGNATURE		DATE	
l N/A		2/17/2012	



# Superior Well Services

1453 E 335 S Vernal, Utah 84078 Office: 435 781 0270
Fax: 435 781 0270
www.swsi.com



# **Primary Cementing Proposal**

# **Thunderbird**

#### **Gordon Creek Productions**

### 5 1/2 IN PRODUCTION CASING

**Well Location** 

Field: Gordon Creek County: Carbon State: Utah

SUPERIOR WELL SERVICES

Well Information

Casing Size: 5 1/2 [in]
Casing Depth: 4400 [ft]
TVD: 4400 [ft]
O.H. Size: 7 7/8 [in]
O.H. Depth: 4400 [ft]

**Water Estimates** 

Spacer: 20.0 [bbls]
Total Mix Water: 179.7 [bbls]
Displacement: 104.1 [bbls]
Wash up: 30.0 [bbls]

Total Water Estimate: 333.9 [bbls]

Date Prepared:

 Pvs. Casing Size:
 8 5/8 [in]

 Pvs. Casing Depth
 800 [ft]

 BHST:
 128.4 [°F]

 BHCT:
 103 [°F]

BREAK THROUGH

Prepared For: Barry Brumwell Prepared By: Don Hardinger

Bo Stinson Phone: 435 790 2550 2/15/12 Fax: 435 781 0270

Email: <a href="mailto:dhardinger@swsi.com">dhardinger@swsi.com</a>

DISCLAIMER OF LIABILITY: With respect to this report, neither Superior Well Services nor any of their employees, makes any warranty, express or implied, including the warranties of merchantability and fitness for a particular purpose, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights.

2/15/2012



## Superior Well Services

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### BREAK THROUGH

Thunderbird

### **Well Bore Information**

Gordon Creek Productions 5 1/2 IN PRODUCTION CASING **Drilling Fluid** 

8.4 ppg Water Based Drilling Fluid

**Spacers** 

**Previous Casing Depth:** 

800 [ft]

**Casing in Casing Factor:** 

0.1931 [cuft/ft]

**Differential Pressure** 

539 [psi] [assumes vertical hole]

**Total Annular Excess** 86 %

Casing in OH1 Factor:

0.1733 [cuft/ft] (Without Excess)

**Casing Capacity Factor:** 

0.1342 [cuft/ft]

Note: Drawing may not be 100%

Accurate with different situations.

**Lead Cement** 

Top: Cement to Surface

3400 [ft] Fill: **Excess:** 100 % 1055 [cuft] Vol:

**Tail Cement** 

Top: 3400 [ft] Fill: 1000 [ft] **Excess:** 50 % 265 [cuft] Vol:

**Shoe Track Length** 

[ft] **Measured Depth** 

4,400 [ft]

Displacement Volume: 104 [bbls]



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BREAK THROUGH

Thunderbird

Gordon Creek Productions
5 1/2 IN PRODUCTION CASING

#### **Mud / Cement Spacer System:**

20 bbls Water @ 8.33 [lb/gal]

#### 20 BBLS of Gelled water W/Superflake

#### Lead System

256 sks

2% Gypsum-60 + 0.25LB/SK Super Flake + 2% Super Sil-SP

Mix Weight: 10.50 [lb/gal]
Yield: 4.12 [cuft/sk]

Mix Water: 25.89 [gal/sk]

### Tail System

111 sks

High Early Compressive + 2% Gypsum - 60 + 0.25 LB/SK Super Flake + 2% Super Sil - SP

Mix Water: 8.23 [gal/sk]

### **Displacement Fluid**

104 bbls of Water

Always refigure on location!!!!



2/15/2012



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### BREAK THROUGH

Price Code	Description SUPERIOR WELL SERVICES	Amount	Units of Sale	U	nit Cost		Total Cost
20-200-0001	Mileage DOT Units - Cmt - per unit, per mile, one way	150	ut-mi	\$	7.60	\$	456.00
20-200-0002	Mileage non-DOT Units -Cmt - per unit, per job	150	ut-mi	\$	4.30	\$	258.00
20-200-0008	Bulk Cement Delivery - per sack, per one way mile	55091	sk-mi	\$	0.18	\$	3,966.55
20-215-0001	Bulk Blending Service - per sack	367	sk	\$	3.20	\$	469.76
20-220-0045	Depth Pumped 4,001' to 4,500' - first 4 hours, per unit	1	unit	\$	3,800.00	\$	1,520.00
20-299-0007	Plug Container HP or Double - each, per job	1	ea	\$	710.00	\$	284.00
20-299-0008	AccuDat Recording System- each, per job	1	ea	\$	1,230.00	\$	492.00
20-299-0010	High Energy Mix System (HEMS) - each, per job	1	ea	\$	746.00	\$	298.40
25-305-1020 25-335-0003 25-300-0001 25-335-0001 25-330-0100	Cement 'C' - per Sack Gilsonite - per pound Gypsum Cement 60 - per pound Super Flake - per pound Super Sil - SP - per pound	367 2564 690 92 690	lb lb	\$ \$ \$ \$	36.80 1.50 1.69 6.40 10.10	\$ \$ \$ \$	5,402.24 1,538.40 466.44 235.52 2,787.60
35-485-0030	Super Gel 30 - per pound	40	lb	\$	21.10	\$	337.60
20-220-1000	Depth Add Hrs - Stand-by - per unit, per hour	1	ut-hr	\$	514.00	\$	514.00
20-200-9998	Fuel Surcharge - as applied		ea	\$	525.00	\$	525.00
20 200 3330	. ac. caranago acappiloa	'	u	Ψ	525.00	Ψ	J2J.00
			G	iros	s Price	\$	47,320.28
			Disco	unt	ed Price	\$	19,551.51

DISCLAIMER OF LIABILITY: With respect to this report, neither Superior Well Services nor any of their employees, makes any warranty, express or implied, including the warranties of merchantability and fitness for a particular purpose, or assumes any legal liability or responsibility for the accuracy, completeness, or usefulness of any information, apparatus, product, or process disclosed, or represents that its use would not infringe privately owned rights.

2/15/2012



# Superior Well Services

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BREAK THROUGH

# **Superior Chemical Descriptions**

Chemical	Description
High Early Compressive	API Class "C" Portland Cement [94 lbs/sk]
Gilsonite	Low density (SG=1.07) asphaltite mineral extender made up of black angular solids used to prepare lower density cements.
Gypsum - 60	Gypsum cement additive used for thixotropic cements or its expansive properties.
Super Flake	Cellophane or Polyester flakes used as a loss circulation additive.
Super Sil - SP	Sodium Metasilicate extender and accelerator.



# **Superior Equipment and Personnel Requested**

2/15/2012

Page 5



# Superior Well Services

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BREAK THROUGH

Well Head Connection

5 1/2" Cement Head

Single Plug Pull Pin Style with Quick Latch Bowl type connection

Cement Pump Truck

1 Superior tractor trailer mounted cement double pump. Superiors tractor trailer cement pumps consist of a recirculating jet mixer, non-radioactive densiometer, 2 high pressure triplex pumps, and data ports to record pressures, rates and densities with Superior's AccuDat software.

This quote is for 4 hours on location, after that time any down hole pump will be charged at \$575.00 (0% discount) per hour and any standby pump at \$514.00 per hour.

Cement Bulk Units

Superior Tractor Trailer style bulk trucks with 2 330 cuft bulk material bottles.

Superior Tractor Trailer style bulk trucks with 2 330 cuft bulk material bottles.

This quote is for 4 hours on location for the mobile bulk equipment, additional hours will be charged at \$196.00 (0% discount) per hour per truck on mobile bulk units only.

AccuDat Software

Superior records all jobs with our AccuDat acquision software. It is capable of recording pressures, rates, and densities simultaneously. AccuDat shows graphs and digital displays as the job is happening. After the job a post job report can be printed out and given to the customer.

Wellsite Services

A derrick charge of \$886 can be applied when the plug container is more than 10 ft off the rig floor, a \$2220 charge for circulating equipment requested before the crew arrives, and a \$123 charge for a plug container left on the well. All are subject to the appropriate discount.

Technical Services

Superior Provides many other services at no charge. Included in that are pressurized mud scales, Cement Job Simulation (requested), Wet and Dry Samples, and Cementing Lab testing when applicable.

Personnel Services

Superior's personnel are provided at no charge for the first 4 hours on location. After that we may charge \$147 per hour (0% discount) for Supervisors or Engineers and \$136 per hour for any operators on location.

February 15, 2012



## Superior Well Services

1453 E 335 S Vernal, Utah 84078 Office: 435 781 0270
Fax: 435 781 0270

www.swsi.com



Barry Brumwell Bo Stinson

The services and materials quoted are based on the best information available at the time that this quotation was prepared. When the actual work is performed the amounts and types of services and materials may require adjustments from this quotation. Actual amounts and types of services and materials will be charged at the time the work is performed. Unit prices from Superior's current price list and discounts quoted are applied as per this quotation, unless otherwise noted.

This quotation is for the materials and services presented under this cover letter. The prices and discounts are based on Superior being awarded the work on a first call basis. Prices maybe adjusted if the work is not on a first call basis. Prices are valid for a period of 3 months following this quotation. Taxes, if any, will be applied to the actual invoice.

All services and materials sold and provided by Superior are subject are General Terms and Conditions, which includes warranty and limited liability provisions. It is agreed between both parties that all materials and services are furnished within the Superiors' General Terms and Conditions and customary Work Order Agreement.

Sincerely

Don Hardinger



			FORM 9
	STATE OF UTAH		FORM 9
	DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MININ		5.LEASE DESIGNATION AND SERIAL NUMBER: FEE
SUNDF	RY NOTICES AND REPORTS O	N WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
	oposals to drill new wells, significantly de reenter plugged wells, or to drill horizonta n for such proposals.		7.UNIT or CA AGREEMENT NAME:
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: GORDON CREEK SW-32-13-8
2. NAME OF OPERATOR: GORDON CREEK, LLC			<b>9. API NUMBER:</b> 43007502460000
3. ADDRESS OF OPERATOR: 1179 E Main #345 , Price,		HONE NUMBER: 3 Ext	9. FIELD and POOL or WILDCAT: WILDCAT
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1340 FSL 0871 FWL			COUNTY: CARBON
QTR/QTR, SECTION, TOWNS	HIP, RANGE, MERIDIAN: 32 Township: 13.0S Range: 08.0E Meridia	an: S	STATE: UTAH
11. CHEC	K APPROPRIATE BOXES TO INDICATE	NATURE OF NOTICE, REPOR	RT, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
ONCE THE AREA FOONTO LOCATION, THE ELECTRIC WIRELI GE-CBL-CCL LOG FRESSURE TEST WOULD THEN STIMULATION OPER	CHANGE TO PREVIOUS PLANS CHANGE WELL STATUS DEEPEN OPERATOR CHANGE PRODUCTION START OR RESUME REPERFORATE CURRENT FORMATION TUBING REPAIR WATER SHUTOFF WILDCAT WELL DETERMINATION  COMPLETED OPERATIONS. Clearly show all DREST FIRES HAVE SUBSIDED A HE INTENT OF THIS SUNDRY N NE UNIT ONTO THE WELL AND ROM TOTAL DEPTH TO SURFAIL THE 5 1/2" PRODUCTION CASISUSPEND OPERATIONS UNTIL PRATIONS ARE PLANNED & PREFER THE COVER OF A SEPARATE	ND WE ARE ALLOWED OTICE IS TO MOVE AN RUN A CASED HOLE CE CASING, AND ALSO NG TO 3,000 psi. WE ERFORATING AND PARED, WHICH WOULD	Approved by the
NAME (PLEASE PRINT)	PHONE NUMBER		
Barry Brumwell SIGNATURE	403 453-1608	Vice President-Operations  DATE	
N/A		6/29/2012	

	STATE OF UTAH		FORM 9			
ı	DEPARTMENT OF NATURAL RESOU DIVISION OF OIL, GAS, AND M		3	5.LEASE DESIGNATION AND SERIAL NUMBER: FEE		
SUNDR	Y NOTICES AND REPORTS	SON	WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:		
	posals to drill new wells, significantl reenter plugged wells, or to drill horiz n for such proposals.			7.UNIT or CA AGREEMENT NAME:		
1. TYPE OF WELL Gas Well				8. WELL NAME and NUMBER: GORDON CREEK SW-32-13-8		
2. NAME OF OPERATOR: GORDON CREEK, LLC				<b>9. API NUMBER:</b> 43007502460000		
3. ADDRESS OF OPERATOR: 1179 E Main #345 , Price,	UT, 84501 403 453-	9. FIELD and POOL or WILDCAT: WILDCAT				
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1340 FSL 0871 FWL			COUNTY: CARBON			
QTR/QTR, SECTION, TOWNSH Qtr/Qtr: NWSW Section:	HIP, RANGE, MERIDIAN: 32 Township: 13.0S Range: 08.0E Me	STATE: UTAH				
11. CHEC	K APPROPRIATE BOXES TO INDIC.	ATE N	ATURE OF NOTICE, REPOR	T, OR OTHER DATA		
TYPE OF SUBMISSION			TYPE OF ACTION			
	ACIDIZE		ALTER CASING	CASING REPAIR		
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	☐ c	CHANGE TUBING	CHANGE WELL NAME		
	CHANGE WELL STATUS		COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE		
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	☐ F	FRACTURE TREAT	NEW CONSTRUCTION		
	OPERATOR CHANGE	P	PLUG AND ABANDON	PLUG BACK		
SPUD REPORT	PRODUCTION START OR RESUME		RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION		
Date of Spud:	REPERFORATE CURRENT FORMATION		SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON		
	TUBING REPAIR	v	/ENT OR FLARE	WATER DISPOSAL		
DRILLING REPORT Report Date:	WATER SHUTOFF		SI TA STATUS EXTENSION	APD EXTENSION		
2/23/2012	WILDCAT WELL DETERMINATION		DTHER	OTHER:		
	COMPLETED OPERATIONS. Clearly shows a Summary and Drilling Re	ports	_	epths, volumes, etc.  Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY August 22, 2012		
Barry Brumwell	403 453-1608	,	Vice President-Operations			
SIGNATURE N/A			<b>DATE</b> 8/22/2012			

#### EXECUTIVE SUMMARY REPORT

4300750246 **GORDON CREEK SW-32-13-8** API #: WELL: 13:45 HRS, 01/12/2012 CARBON COUNTY, UTAH SPUD: COUNTY: 01:30 HRS, 02/23/2012 **OBJECTIVE:** To drill & complete a Ferron Gas well R.R.: CapStar Drilling RIG CONTRACTOR: BIT INFORMATION: TOTAL ROT. SIZE **DEPTH DEPTH TYPE** HOURS IN (ft) OUT (ft) **HOURS** (inches) UNKNOWN 0 41 UNKNOWN UNKNOWN 17 820 10.5 10.5 41 PDC 11 14 3.5 820 1307 HAMMER BIT 7 7/8 4600 83.5 94 1307 PDC 7 7/8 **CONDUCTOR CASING:** 0' 41' 17 **CONDUCTOR SET FROM:** to **HOLE SIZE:** The 12 ¾" conductor pipe was run to 41' and cemented full length. SURFACE CASING: 11" **SURFACE CASING FROM:** 820' **HOLE SIZE:** Ran a total of 18 joints of 8 5/8", 24 #/ft, J-55, ST&C casing landed at 814.75' KB. Cemented with 440 sks of premium G cement mixed at 15.7 ppg with 3% CaCl2 + 0.25 #/sk Superflake + 3 #/sk Super GR. No returns, plugs held OK. Top fill through 1" pipe with 55 sks of cement. **PRODUCTION CASING FROM:** 4582.85' 7 7/8" 0' to **HOLE SIZE:** Ran a total of 107 joints of 5 1/2", 17.0 #/ft, N-80, LT&C casing landed at 4,582.85' KB. Cemented with 231 sks of Class III cement at 10.7 ppg + 2% Gypsum + 2% Super SIL-SP + 0.25 #/sk SuperFlake + 3 #/sk Super GR, tailed in with 160 sks of Class III cement at 11.5 ppg + 2% Gypsum + 2% Super SIL-SP + 0.25 #/sk SuperFlake + 3 #/sk Super GR. Bumped plug, floats held, no returns at surface.

PLEASE REFER TO THE ATTACHED DRILLING REPORTS FOR SPECIFIC DAILY WELL INFORMATION

p	Ç 📄			GO			EEK, L	.LC			
	PERBIRD PROY :	Thunderbird	Energy		DAILY	DRILLING RE	LOCATION: WELL API #:			- 32-13-8 0750246	
COMPANY M CELLULAR # SPUD DATE: R.R. DATE: RIG COMPAN			Bo Stinson 435-630-6344 40920.57292 Cap Star				REPORTING T PHONE #: A.F.E. #: DAILY COST: CUM. COST:	O:	403- 110 \$1	Brumwell 818-0696 DRL005 10,389 10,389	
EST. T.D:	DAY;	1	F	REPORT DATE		STATUS 06:0				(D&C): 	\$458,000
	DEPTH: SURVEYS:	320	PROG:	279	KB:	5.00	GL:	7445.70			
	MUD TYPE: ADDITIVES:	air	WT:		VISC:		WL:		PH:		FC:
BIT# 1	SERIAL # 113467	SIZE 11"	MFG Reed	TYPE PDC	JETS open	WOB 12K	101	FEET DRLD 279	HOURS 2.5	ROP 111.6	GRADE
	PUMP	DESCR.	LINER	STK	SPM	RATE	PRESS	AV DC	AV DP	NOZZLE VEL	
	DRILLING ASSEME TOOL PDC bit reamer 5-DC,	SLY	OD 11" 10" 5.500"	ID 2" 2" 2"	LENGTH 1.00 15.00 150.00		TIME DISTRIB MOVE RIG: RIG TO SPUD: WELD ON BBL: RIG SERVICE: SURVEY: PRESSURE TEST DRILL: HANDLE TOOLS: CIRCULATE: NIPPLE DN BOP: DRILL OUT: REAM: SAFETY MEETING		2.00	L.D.D.S.: LOGGING: CEMENT: WAIT MOVE WOC: RUN CSG: DST: TRIP: WAIT ON: WELD BOWL DIR. WORK: PASON SLIP LINE:	
	LAST CASING SUN	IMARY	JTS	TOTAL	166.00		STUCK & FISH: RIG DOWN TIME RIG Out TOTAL HOURS: #/ft		10.00 <b>GRADE</b>	WORK CON: Other Nipple Up	5.50 CONN.
	LANDED AT CEMENTED WITH PLUG DOWN AT LOGS RUN		ft KB.	TOTAL LENG		WITH	feet	ft3 CEMENT R			
REMARKS 6:00 19:00 21:00 0:00 4:00	24:00	rig up, set up	l equipment or equipment ansferred DC	n location & DP, pick u	p bha, and rih		3:35am)				

فانتبر	Q.			GO	<b>RDON</b>	N CRE	EK, L	LC .				
	PERBIRD Ergy :	Thunderbird	Energy		<u>DAIL)</u>	<u>( DRILLING RE</u>	PORT LOCATION: WELL API #:			- 32-13-8 0750246	<del>.</del>	
COMPANY M CELLULAR # SPUD DATE:	ti.		Bo Stinson 435-630-634 40920.57292	4			REPORTING T PHONE #: A.F.E. #:	o:	Barry 403-	Brumwell 818-0696 DRL005		
R.R. DATE: RIG COMPAN EST. T.D:	NY:		Cap Star 4228'				DAILY COST: CUM. COST: AFE EST (D&A	<b>)</b> ):	<del></del>	33,842 14,231 (D&C):	\$458,000	
	DAY: DEPTH: SURVEYS:	820	PROG	REPORT DATE		STATUS 06:00 5,00		7445.70		drilling @ 320'		
	MUD TYPE: ADDITIVES:		WT	!	VISC		WL:		PH		FC:	
BIT# 1	SERIAL # 113467	SIZE 11"	MFG Reed	TYPE PDC	JETS open	<b>WOB</b> 12K	RPM 101	FEET DRLD 500	HOURS 8.5	ROP 62.5	GR	ADE
	PUMP	DESCR.	LINER	STK	SPM	RATE	PRESS	AV DC	AV DP	NOZZLE VEL		
	DRILLING ASSEM TOOL PDC reamer Dc-5	BLY	OD 11" 10" 5.500"	ID 2" 2" 2" 2"	LENGTH 1.00 15.00 150.00	j	TIME DISTRIB MOVE RIG: RIG TO SPUD: WELD ON BBL: RIG SERVICE: SURVEY: PRESSURE TEST DRILL: HANDLE TOOLS: CIRCULATE: NIPPLE DN BOP: DRILL OUT: REAM: SAFETY MEETING STUCK & FISH:		8.00	L.D.D.S.: LOGGING: CEMENT: WAIT MOVE WOC: RUN CSG: DST: TRIP: WAIT ON: WELD BOWL DIR. WORK: PASON SLIP LINE: WORK CON:	2 00 7 00 4 00	
	LAST CASING SUP RAN LANDED AT CEMENTED WITH PLUG DOWN AT LOGS RUN		API class, G P	TOTAL  814.25' TOTAL LENG remium cement 4	ĞТН	24 808.25	RIG DOWN TIME RIG OUT TOTAL HOURS: #/ft feet none	J-55	24.00 GRADE ETURNS.	Other Nipple Up STC	CONN	
6:00 14:00 15:30 16:00 18:30 1:00 2:00 2:30 4:30 5:00	14:00 15:30 16:00 18:30 1:00 2:00 2:30 4:30	TOOH, laying transfer DP at RIH with 18. WO cements spot in equip safety meeting pumped 20 to pressure clin pressure at p. SI	g down DP & and casing, p Uts. Of 8.625' ers to arrive ment and rig ng, test lines bbls high vis sobls high vis sobls high vis sobled up to 48 blug down 84	sweep with 50 sweep with 50	a (TOOH smo alley pipe ed at 814.25', s # celiflake, 1 # celiflake,p. e back to 200 k to 200#, SI	Baffle plate (  0 bbl. Spacer imped @ 3.51 # then contini well for 30 mi	@ 769.15' , 440 sks of propm, density (except to climb to nutes to top fi	remium class @ 15.4 to 15.4 o plug down, Il casing	G cement. 8 PPG, displa (pressure bre	aced with 48 bbl ak @ 8 bbls lefi	s of H2O in displ.)	
Weather:												

THUND	FRRIPO			GO		ORILLING RE	EK, L	LC				
WELL NAME:	RCY	Thunderbird	Energy				LOCATION: WELL API #:			32-13-8 9750246		
COMPANY MA CELLULAR #: SPUD DATE: R.R. DATE: RIG COMPAN			Bo Stinson 435-630-6344 40920.57292 Cap Star				REPORTING T PHONE #: A.F.E. #: DAILY COST: CUM. COST:		Barry 403-8 110 84	Brumwell 118-0696 17L005 1,597 3,476		
EST. T.D;	DAY:		l R	EPORT DATE	26-Jan-12	STATUS 06:0	AFE EST (D&A	A): 		(D&C):	\$458,000	······································
	DEPTH: SURVEYS:	820	PROG:			5.00		7445.70				
	MUD TYPE:		WT:		VISC:		WL:		PH:		FC:	
BIT#	SERIAL #	SIZE	MFG	TYPE	JETS	WOB	RPM	FEET DRLD	HOURS	ROP	GRADE	
	PUMP	DESCR.	LINER	STK	SPM	RATE	PRESS	AV DC	AV DP	NOZZLE VEL		
REMARKS 6:00 14:00		IMARY WOC to set	JTS ff KB.		ed equipment		TIME DISTRIB MOVE RIG: RIG TO SPUD: WELD ON BBL: RIG SERVICE: SURVEY: PRESSURE TEST DRILL: HANDLE TOOLS: CIRCULATE: NIPPLE DM BOP: DRILL OUT: REAM: SAFETY MEETING SAFETY MEETING TO TAL HOURS: #//thickedocolors/ #//thickedocolors/ feet	ft3 CEMENT R	1.00 9.00 GRADE ETURNS.	L.D.D.S.: LOGGING: CEMENT: WAIT MOVE WOC: RUN CSG: DST: TRIP: WAIT ON: WELD BOWL DIR: WORK: PASON SLIP LINE: WORK CON: Other Nipple Up	8.00 CONN.	

/* TU/ NIC	L. SEPRIDO			GO		CRI	EEK, L	.LC			
	DERBIRD HERGY EI	Thunderbird	Energy		-		LOCATION: WELL API#:			32-13-8 0750246	
COMPANY N			Bo Stinson 435-630-6344				REPORTING T	o: .		Brumwell 318-0696	
SPUD DATE R.R. DATE:	•		40920.57292				A.F.E. #: DAILY COST:	- Fred	11 <u>[</u> \$8	ORL005 3,532	
RIG COMPA EST. T.D:			Cap Star				CUM, COST: AFE EST (D&A	):	\$1:		\$458,000
	DAY: DEPTH: SURVEYS:	989 83676.92	PROG:	EPORT DATE 169'		STATUS 06:0 7456.70		7445.70		rìg up	
	MUD TYPE: ADDITIVES:		WT:		VISC		WL:		PH:		FC:
BIT #	SERIAL # 70210956	<b>SIZE</b> 7.875	MFG centerrock	TYPE hammer	JETS open	WOB 5-7	RPM 60	FEET DRLD 174.75	HOURS 1.5	ROP 174.75	GRADE
	PUMP	DESCR.	LINER	STK	SPM	RATE	PRESS	AV DC	AV DP	NOZZLE VEL	
	DRILLING ASSEME TOOL Hammer bit Hammer 10-DC bit sub	1 3LY	OD 7.875 7.15 6.25" 6.25"	ID 2.25" 2.25" 2.25" 2.25" 2.25"	LENGTH 1.00 6.57 304.06 2.68		TIME DISTRIBI MOVE RIG: RIG TO SPUD: WELD ON BBL: RIG SERVICE: SURVEY: PRESSURE TEST: DRILL: HANDLE TOOLS:		6.00 6.00 0.50 2.50 1.50	L.D.D.S.: LOGGING: CEMENT: WAIT MOVE WOC: RUN CSG: DST: TRIP:	4.00
				TOTAL	314.31		CIRCULATE: NIPPLE DN BOP: DRILL OUT: REAM: SAFETY MEETING STUCK & FISH: RIG DOWN TIME RIG OUT		1.00	WAIT ON: WELD BOWL DIR. WORK: PASON SLIP LINE: WORK CON: Other Nipple Up	2.50
	LAST CASING SUN RAN LANDED AT	IMARY	JTS ft KB.	TOTAL LENG	in STH		TOTAL HOURS: #/ft feet		24.00 GRADE		CONN.
	CEMENTED WITH PLUG DOWN AT LOGS RUN		<b></b>	IRS. ON		WITH		fi3 CEMENT RE	TURNS.		
REMARKS 6:00 12:00 4:00 8:30 11:00 12:30 3:00 4:30 5:00	12:00 4:00 8:30 11:00 12:30 3;00 4:30 5:00 6:00	MORU, nipple up bop plumb in mur Rig up BOP pick up BHA Rih, tagged of drilled out of	p, laid out flow d tank, fill uprig tester and test cement @ 720 surface casing 6", 6.92 degree	lines, set up int with wate	equipment.						

, sold				GO	RDON	I CRE	EK, L	LC.			
	ERBIRD Froy :	Thunderbird	Energy		<u>DAILY</u>	DRILLING RE	PORT  LOCATION:  WELL API #:			32-13-8 750246	Nakana
COMPANY M CELLULAR # SPUD DATE: R.R. DATE: RIG COMPAN			Bo Stinson 435-630-6344 40920.57292 Cap Star				REPORTING T PHONE #: A.F.E. #: DAILY COST: CUM. COST:	O:	Barry 403-8 11E \$5	Brumwell 318-0696 0RL005 6,662 13,670	
EST. T.D:			4228				AFE EST (D&A	):		(D&C):	\$458,000
	DAY: DEPTH: SURVEYS:	5 1957 960'/6.18	PROG: 108675.02	REPORT DATE 1137 1213/4.47		STATUS 06:0 7456.70 1456'/3.65		<b>7445.70</b> 1673'/3.12	1829'/2.24	drilling	
	MUD TYPE:	H2O		mist	VISC:		WL:		PH:		FC;
BIT # 2 3	SERIAL # 70210956 TJ0904	SIZE 7.875 7.875	MFG Centerrock Shear	drill foam  TYPE  Hammer  PDC	JETS open 20	WOB 4-7 7-15	RPM 60 60	FEET DRLD 492.75 650	HOURS 3.5 12	ROP 164.25 54.2	GRADE
	PUMP	DESCR.	LINER	STK	SPM	RATE	PRESS	AV DC	AV DP	NOZZLE VEL	
	DRILLING ASSEMI TOOL PDC bit Bit Sub 10-DC	SLY	OD 7.875 6.25 .6.26	ID 2" 2.25 2.25	LENGTH 0.70 2.68 304.06		TIME DISTRIB MOVE RIG: RIG TO SPUD: WELD ON BBL: RIG SERVICE: SURVEY: PRESSURE TEST: DRILL: HANDLE TOOLS: CIRCULATE: NIPPLE DN BOP: DRILL OUT: REAM: SAFETY MEETING		0.50 4.00 14.00 2.00	L.D.D.S.: LOGGING: CEMENT: WAIT MOVE WOC: RUN CSG: DST: TRIP: WAIT ON: WELD BOWL DIR. WORK: PASON SLIP LINE:	350
	LAST CASING SUN RAN LANDED AT CEMENTED WITH PLUG DOWN AT	MMARY	JTS ft KB.	TOTAL LENG	307.44 In 3TH	WITH	STUCK & FISH: RIG DOWN TIME RIG OUT TOTAL HOURS: #/ft feet	H3 CEMENT R	24.00 GRADE ETURNS.	WORK CON: Other Nipple Up	_CONN.
	LOGS RUN										
REMARKS 6:00 6:30 7:00 7:30 8:30 9:00 9:30 10:00 11:30 12:00 15:30 16:00 18:30 19:00 20:30 21:00 23:30 0:01 2:30 3:30	6:30 7:00 7:30 8:30 9:00 9:30 10:00 11:30 12:00 14:00 15:30 16:00 18:30 19:00 20:30 21:00 23:30 0:00 2:30 3:30 6:00	drilled from 9 survey @ 10 Drilled from 9 survey @ 12 Drilled from 10 circhole clear POOH with a Rig service RIH with PD Break cir Drilled from 10 Survey @ 13 drilled from 10 survey @ 15 drilled from 10 survey @ 16 drilled from 10 survey @ 18 drilled from 10 st all returns survey @ 18	186', 5.02 1117' to 1245 113', 4.47 degi 1245' to 1307 n prep to TOC air hammer C bit 1307' to 1360 1360' to 1486' 156', 3.65 degi 1486' to 1577' 48', 3.38 degi 1577' to 1704' 73', 3.12 degi 1704' to 1834'	ree	at 1150 @ 60 static over bu	rden on ham	imer				
Weather:	clear and cold										

7°	S. SEPRIPO			GO		CRI	EEK, L	.LC				
WELL NAME COMPANY M CELLULAR A SPUD DATE R.R. DATE:	RIG COMPANY:		Bo Stinson 435-630-6344 40920.57292 Cap Star 4228		LOCATION: WELL API #:  REPORTING TO: PHONE #: A.F.E. #: DAILY COST: CUM. COST: AFE EST (D&A):			430 Barry 403- 11[	32-13-8 0750246 Brumwell 818-0696 DRL005 34,817 48,487 (D&C):	\$458,000		
	DEPTH:	6 2755 211372.54	PROG: 24241/1.47	REPORT DATE		STATUS 06: 7456.70		7445.70		drilling		
	MUD TYPE: ADDITIVES:		WT:		VISC:		WL:		PH:		FC:	
BIT # 3	SERIAL # TJ0904	<b>SIZE</b> 7.875	MFG Shear	TYPE PDC	JETS 20	WOB 15	<b>RPM</b> 60	FEET DRLD 1448	HOURS 29	ROP 49.9	GRADE	
	PUMP	DESCR.	LINER	STK	SPM	RATE	PRESS	AV DC	AV DP	NOZZLE VEL		
	DRILLING ASSEME TOOL same LAST CASING SUM RAN LANDED AT CEMENTED WITH		OD  JTS ft KB.	TOTAL	LENGTH				1.00 17.00 3.00 3.00 24.00 GRADE	L.D.D.S.: LOGGING: CEMENT: WAIT MOVE WOC: RUN CSG: DST: TRIP: WAIT ON: WELD BOWL DIR. WORK: PASON SLIP LINE: WORK CON: Other	1.50 ————————————————————————————————————	
REMARKS 6:00 8:00 8:30 9:30 10:30 11:00 13:30 15:30 17:00 18:30 19:00 23:30 24:00	8:00 8:30 9:30 10:30 11:00 13:00 15:30 17:00 18:30 19:00 23:30	worked pipe drilled from 2 lost cir. Worf short trip to 1 unloaded ho Drilled from 2 Tried to unlo drilling with f switched bac survey @ 21 drilled from 2 survey @ 24	1957' to 2018' to ct break cir 2018" to 2050' ked pipe, pres 1116' le, RIH to 136 2050' to 2082' ad hole, press luids, drilled f	lost cir at co sure up to 96 6' unload ho sure to high urom 2082' to brought pur	onnection  89# , no progre le again, unload up to 1500#'s 12123',	ss de hole @	and the second s	ft3 CEMENT R				

	<u> </u>			GO			EEK, L	LC				
	AN: :	Thunderbird	Bo Stinson 435-630-6344 40920.57292 Cap Star 4400		DAILY	DRILLING R	LOCATION: WELL API #: REPORTING 1 PHONE #: A.F.E. #: DAILY COST: CUM. COST: AFE EST (D&A		430 Barry 403- 111 \$3	- 32-13-8 0750246 Brumwell 818-0696 DRL005 31,800 80,287	\$458,000	
	DAY: DEPTH:	7 3790	PROG:	EPORT DATE		STATUS 06: 7456.70		7445.70		drilling		
	SURVEYS:  MUD TYPE:	28907.61	3354/1.38 WT:	366471.36	VISC		WL:		PH		FC:	
BIT #	SERIAL # TJ0904	<b>SIZE</b> 7.875	MFG Shear	TYPE PDC	JETS 20	WOB 7-10	<b>RPM</b> 60	FEET DRLD 2483	<b>HOURS</b> 50.5	ROP 49.2	GR/	ADE
	PUMP	DESCR.	LINER	STK	SPM	RATE	PRESS	AV DC	AV DP	NOZZLE VEL		
	DRILLING ASSEME TOOL same		OD	TOTAL	LENGTH		TIME DISTRIB MOVE RIG: RIG TO SPUD: WELD ON BBLI: RIG SERVICE: SURVEY: PRESSURE TEST DRILL: HANDLE TOOLS: CIRCULATE: NIPPLE DN BOP: DRILL OUT: REAM: SAFETY MEETING STUCK & FISH: RIG DOWN TIME RIG OUT		0.50 1.50 21.50 0.50	L.D.D.S.: LOGGING: CEMENT: WAIT MOVE WOC: RUN CSG: DST: TRIP: WAIT ON: WELD BOWL DIR WORK: PASON SLIP LINE: VORK CON: Other Nipple Up		
	LAST CASING SUN RAN LANDED AT CEMENTED WITH PLUG DOWN AT LOGS RUN	<u>IMARY</u>	JTS ft KB.	TOTAL LEN	in GTH	WITH	TOTAL HOURS: #/ft feet	ft3 CEMENT RI	24.00 GRADE ETURNS.		CONN.	
REMARKS 6:00 9:30 10:00 13:30 14:00 20:00 20:30 1:00 1:30 3:30 4:00	9:30 10:00 13:30 14:00 20:00 20:30 1:00 1:30 3:30 4:00 6:00	survey @ 28 drilled from 2 Rig service drilled from 3 survey @ 33 drilling from 3 pit down bac drilled from 3 survey @ 36	3384' to 3569'	ee, LP went	down restarted		to fluid, cir to p					

, sá	<u> </u>			GO	RDON	I CRE		LC.			
	DERBIRD ergy ::	Thunderbird	Energy		<b></b>		LOCATION: WELL API #:			32-13-8 0750246	
COMPANY M CELLULAR # SPUD DATE:	<b>!</b> :		Bo Stinson 435-630-6344 40920.57292				REPORTING T PHONE #: A.F.E. #:	O:	403-1 11E	Brumwell 818-0696 DRL005	
R.R. DATE: RIG COMPAI EST, T.D:	NY:		Cap Star 4600				DAILY COST: CUM. COST: AFE EST (D&A	);		0,300 10,587 (D&C):	\$458,000
	DAY: DEPTH: SURVEYS:	8 4398 39487,94	PROG: 4262'/1.46	EPORT DATE		STATUS 06:0 7456.70		7445.70		drilling	
	MUD TYPE; ADDITIVES:		WT:		VISC:		WL:		PH:		FC:
BIT# 3	SERIAL# TJ0904	<b>SIZE</b> 7.875	MFG Shear	TYPE PDC	<b>JETS</b> 20	WOB 12k	<b>RPM</b> 60	FEET DRLD 3091	HOURS 72	ROP 42.93	GRADE
	PUMP	DESCR.	LINER	STK	SPM	RATE	PRESS	AV DC	AV DP	NOZZLE VEL	
	DRILLING ASSEME TOOL same	SLY	OD	ID .	LENGTH		TIME DISTRIBI MOVE RIG: RIG TO SPUD: WELD ON BBL: RIG SERVICE: SURVEY: PRESSURE TEST: DRILL: HANDLE TOOLS: CIRCULATE: NIPPLE DN BOP: DRILL OUT: REAM: SAFETY MEETING STUCK & PISH: RIG DOWN TIME		0.50 1.00 21.50 1.00	L.D.D.S.: LOGGING: CEMENT: WAIT MOVE WOC: RUN CSG: DST: TRIP: WAIT ON: WELD BOWL DIR. WORK: PASON SLIP LINE: WORK CON: Other	
	LAST CASING SUN RAN LANDED AT	<u>IMARY</u>	JTS ft.KB.	TOTAL  TOTAL LEN	In GTH		Rig Out TOTAL HOURS: #/ft feet		24.00 GRADE	Nipple Up	CONN.
	CEMENTED WITH PLUG DOWN AT LOGS RUN			HRS. ON		WITH		ft3 CEMENT R	ETURNS.		100 mm
REMARKS 6:00 10:30 11:00 13:00 13:30 14:00 15:00 23:30	10:30 11:00 13:00 13:30 14:00 15:00 23:00 23:30 6:00	survey @ 39 drilled from 3 Repair on rig drilled from 3 switched bac drilled from 4 survey @ 42	979' to 4073'	sand stone	·	20 sand.	DP @ 9-25, W				
Weather:	cold and clear										

phi	Q.			GO			EEK, L	.LC			
THUND ENI WELL NAME:	PERBIRD ergy :	Thunderbird	l Energy		DAIL	Y DRILLING RE	LOCATION: WELL API #:	LOCATION: S			
COMPANY MAN: CELLULAR #: SPUD DATE: R.R. DATE: RIG COMPANY:			Bo Stinson 435-630-634- 40920.57292 Cap Star	4				O;	403-4 11E \$4	Brumwell 818-0696 DRL005 0,350 50,937	
EST, T.D:		9	4600	REPORT DATE	22-Feb-12	STATUS 06:0	AFE EST (D&A	): 	PRINCIPLE	(D&C):	\$458,000
	DEPTH: SURVEYS:	4600 4568'/1.77	PROG			7456.70		7445.70			
BIT # 3	MUD TYPE: ADDITIVES: SERIAL # TJ0904	h2o clay treat SIZE 7.875	polymer  MFG Shear	8.334 LCM TYPE PDC	VISC Inhibitor  JETS 20	32	RPM 60	FEET DRLD 3293	HOURS 83.5	ROP 39.44	FC:
	PUMP	DESCR.	LINER	STK	SPM	RATE	PRESS	AV DC	AV DP	NOZZLE VEL	
	DRILLING ASSEME TOOL same	BLY	OD	ID.	LENGTH		TIME DISTRIB MOVE RIG: RIG TO SPUD: WELD ON BBL: RIG SERVICE: SURVEY: PRESSURE TEST: DRILL: HANDLE TOOLS: CIRCULATE: NIPPLE DN BOP: DRILL OUT: REAM: SAFETY MEETING STUCK & FISH: RIG DOWN TIME		0.50 11.50 3.50	L.D.D.S.: LOGGING: CEMENT: WAIT MOVE WOC: RUN CSG: DST: TRIP: WAIT ON: WELD BOWL DIR: WORK: PASON SLIP LINE: WORK CON: Other	7.50
	LAST CASING SUM RAN LANDED AT CEMENTED WITH PLUG DOWN AT LOGS RUN	<u>IMARY</u>	JTS ft KB.	TOTAL LENG			Rig Out TOTAL HOURS: #/ft feet	ft3 CEMENT R	24.00 GRADE ETURNS.	Nipple Up	CONN.
REMARKS 6:00 12:30 13:00 18:00 20:30 21:30 22:30 23:30 5:00	12:30 13:00 18:00 20:30 21:30 22:30 23:30 5:00 6:00	Rig service drilled from cir. Hole clea short trip to RIH, tagged run sweep w POOH, layir	3542' d @ 4599' vith polymer a	", TD @ 6:38   good cir. @ st nd lcm to get	pm, 2-21-12 art, lost cir. P		ils. Polymer sv		ir., survey @	4568', 1.77 deg	ree
										·	

ján.	Ç.			GO			EEK, L	LC				
WELL NAME:		Thunderbird			DAILY	DRILLING RE	LOCATION: WELL API#:		430	· 32-13-8 0750246		
COMPANY M CELLULAR # SPUD DATE: R.R. DATE:			Bo Stinson 435-630-6344 40920.57292		REPORTING TO: PHONE #: A.F.E. #: DAILY COST: CUM. COST: AFE EST (D&A):		O:	403- 111 \$1	Brumwell 818-0696 DRL005 29,171			
RIG COMPAN EST. T.D:	IY:		Cap Star 4600					<b>(</b> ):	\$4	80,107 (D&C):	\$458,000	
	DAY: DEPTH: SURVEYS:	10 4600	PROG:	REPORT DATE		STATUS 06:0 7456.70		7445.70		logging well		
	MUD TYPE: ADDITIVES:		WT:		VISC:		WL:		PH		FC:	
BIT#	SERIAL#	SIZE	MFG	TYPE	JETS	WOB	RPM	FEET DRLD	HOURS	ROP	GR,	ADE
	PUMP	DESCR.	LINER	STK	SPM	RATE	PRESS	AV DC	AV DP	NOZZLE VEL		
	DRILLING ASSEMITOOL	BLY	OD	ID.	LENGTH		TIME DISTRIB MOVE RIG: RIG TO SPUD: WELD ON BBL: RIG SERVICE: SURVEY: PRESSURE TEST DRILL: HANDLE TOOLS: CIRCULATE: NIPPLE DN BOP: DRILL OUT: REAM: SAFETY MEETING STUCK & FISH: RIG DOWN TIME		1.50	L.D.D.S.: LOGGING: CGMENT: WAIT MOVE WOC: RUN CSG: DST: TRIP: WAIT ON: WELD BOWL DIR. WORK: PASON SLIP LINE: WORK CON: Other	3.00 2.00 7.50	
	LAST CASING SUM RAN LANDED AT CEMENTED WITH PLUG DOWN AT LOGS RUN triple combo, compen	107 4582.85	230sks lead 10' 20:46	HRS: ON ray, dual induct	GTH sks tail 11.5# clas lion guard log	ss3 WITH	Rig Out TOTAL HOURS: 7 #ift feet	n-80		Nipple Up	CONN.	
REMARKS 6:00 9:00 9:30 10:00 17:30 19:00 21:00 22:00 24:00	9:00 9:30 10:00 17:30 19:00 21:00 22:00 24:00 1:30	Rig down log prep to run c TIH with 5.5" pumped 280 started job, p sks tail, displ rig down cem	casing, lande bbls pit water umped 40 bb	ell sed ed casing @ 4 to fill casing, l. Gell pill with b bbls of h2o, ased.	4582.85', float fluid u-tub, ch n 50 celflake, s no returns to	collar @ 45 necked strin 5 bbl spacer		nds thru out o 0#, rigged up ell sweep 50 #	lay slowed tri cementers, s	afety meeting, p en cement 230 s		
Weather:	windy and cold											enand Administration (Internal

	STATE OF UTAH		FORM 9			
	DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	3	5.LEASE DESIGNATION AND SERIAL NUMBER: FEE			
	RY NOTICES AND REPORTS ON		6. IF INDIAN, ALLOTTEE OR TRIBE NAME:			
	posals to drill new wells, significantly deep reenter plugged wells, or to drill horizontal n for such proposals.		7.UNIT or CA AGREEMENT NAME:			
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: GORDON CREEK SW-32-13-8			
2. NAME OF OPERATOR: GORDON CREEK, LLC	9. API NUMBER: 43007502460000					
3. ADDRESS OF OPERATOR: 1179 E Main #345 , Price,		NE NUMBER: Ext	9. FIELD and POOL or WILDCAT: WILDCAT			
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1340 FSL 0871 FWL			COUNTY: CARBON			
QTR/QTR, SECTION, TOWNSI Qtr/Qtr: NWSW Section:	HIP, RANGE, MERIDIAN: 32 Township: 13.0S Range: 08.0E Meridian:	S	STATE: UTAH			
11. CHEC	K APPROPRIATE BOXES TO INDICATE N	ATURE OF NOTICE, REPOR	RT, OR OTHER DATA			
TYPE OF SUBMISSION		TYPE OF ACTION				
We plan to pe 4358'-4364', 4350 4284'-4290', then treatment. Then Ferron 4222'-4 4160'-4162', 4154 4041'-4045' & 403 with a 55.6 T fractu before moving on	CHANGE TO PREVIOUS PLANS  CHANGE WELL STATUS  DEEPEN  OPERATOR CHANGE  PRODUCTION START OR RESUME  REPERFORATE CURRENT FORMATION  TUBING REPAIR  WATER SHUTOFF	2', 4370'-4375', 333', 4300'-4303' & perfs with a 57.2 T en perf the Upper 0', 4191'-4195', 104', 4054'-4060', Upper Ferron perfs Il zones on clean up lugs, then run tbg,	CASING REPAIR  CHANGE WELL NAME  CONVERT WELL TYPE  NEW CONSTRUCTION  PLUG BACK  RECOMPLETE DIFFERENT FORMATION  TEMPORARY ABANDON  WATER DISPOSAL  APD EXTENSION  OTHER: Perforate Ferron Formation  Depths, volumes, etc.  Approved by the Utah Division of Oil, Gas and Mining  Date: August 27, 2012  By:			
NAME (PLEASE PRINT) Barry Brumwell	PHONE NUMBER 403 453-1608	TITLE Vice President-Operations				
SIGNATURE N/A	403 453-1606	<b>DATE</b> 8/21/2012				

	STATE OF UTAH		FORM 9					
ι	DEPARTMENT OF NATURAL RESOURCES DIVISION OF OIL, GAS, AND MINING	3	5.LEASE DESIGNATION AND SERIAL NUMBER: FEE					
SUNDR	Y NOTICES AND REPORTS ON	WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:					
	posals to drill new wells, significantly dee reenter plugged wells, or to drill horizontal n for such proposals.		7.UNIT or CA AGREEMENT NAME:					
1. TYPE OF WELL Gas Well	8. WELL NAME and NUMBER: GORDON CREEK SW-32-13-8							
2. NAME OF OPERATOR: GORDON CREEK, LLC			9. API NUMBER: 43007502460000					
3. ADDRESS OF OPERATOR: 1179 E Main #345 , Price, l		ONE NUMBER: Ext	9. FIELD and POOL or WILDCAT: WILDCAT					
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1340 FSL 0871 FWL			COUNTY: CARBON					
QTR/QTR, SECTION, TOWNSH Qtr/Qtr: NWSW Section:	ilP, RANGE, MERIDIAN: 32 Township: 13.0S Range: 08.0E Meridian	: S	STATE: UTAH					
11. CHECI	K APPROPRIATE BOXES TO INDICATE N	IATURE OF NOTICE, REPOR	RT, OR OTHER DATA					
TYPE OF SUBMISSION		TYPE OF ACTION						
	ACIDIZE	ALTER CASING	CASING REPAIR					
NOTICE OF INTENT Approximate date work will start:	CHANGE TO PREVIOUS PLANS	CHANGE TUBING	CHANGE WELL NAME					
Approximate date work will start.	CHANGE WELL STATUS	COMMINGLE PRODUCING FORMATIONS	CONVERT WELL TYPE					
SUBSEQUENT REPORT Date of Work Completion:	DEEPEN	FRACTURE TREAT	NEW CONSTRUCTION					
6/30/2012	OPERATOR CHANGE	PLUG AND ABANDON	PLUG BACK					
SPUD REPORT	PRODUCTION START OR RESUME	RECLAMATION OF WELL SITE	RECOMPLETE DIFFERENT FORMATION					
Date of Spud:	REPERFORATE CURRENT FORMATION	SIDETRACK TO REPAIR WELL	TEMPORARY ABANDON					
	TUBING REPAIR	VENT OR FLARE	WATER DISPOSAL					
DRILLING REPORT Report Date:	WATER SHUTOFF	SI TA STATUS EXTENSION	APD EXTENSION					
Report Date.								
		OTHER	OTHER: No Activity					
12. DESCRIBE PROPOSED OR COMPLETED OPERATIONS. Clearly show all pertinent details including dates, depths, volumes, etc.  There was NO activity on this well from Drilling Rig Release Date (01:30 02/23/2012) until June 30, 2012. The well was cased with 5 1/2" production casing to 4,582.85' KB and is sitting as a cased Potential Ferron Gas Well.  Ferron Gas Well.  Accepted by the Utah Division of Oil, Gas and Mining FOR RECORD ONLY August 28, 2012								
NAME (PLEASE PRINT) Barry Brumwell	<b>PHONE NUMBER</b> 403 453-1608	TITLE Vice President-Operations						
SIGNATURE N/A		<b>DATE</b> 8/27/2012						

STATE OF UTAH
DEPARTMENT OF NATURAL RESOURCES

	$\mathcal{J}$		AMERITED REPORT (high wiftiganges)	] FORM 8
9		IJ	(high ight changes)	

		.[	DIVISIO		-	GAS			G G				5. E	ASE DE	CANATION	AND SE	RIAL NUME	ER:
	L COMP	PLET	ION (	OR R	RECC	MPL	ETIC	N RE	POF	T AND	LOG		6. IF	INDIAN, A	ALLOTTEE	OR TRIE	E NAME	
1a. TYPE OF WELL:			ELL 🗆		SAS C		DRY		ОТН				7. UN	IIT or CA	AGREEME	NT NAM	Ē	<del></del>
b. TYPE OF WORK	(: HORIZ.	DE EN	EP-	R E	RE- NTRY	<b>_</b>	DIFF. RESVR.		отн	ER				8. WELL NAME and NUMBER: GORDON CREEK SW-32-13-8				
2. NAME OF OPERA GORDON	ATOR:													3007:	R: 50246			_
3. ADDRESS OF OF											NUMBER:		10 FII	10 FIELD AND POOL, OR WILDCAT				
1179 E. MA			ITY PRI	ICE		STATE	UT	ZIP <b>84</b> 5	501	(40	3) 453-1	608		VILDO		TOWNS	HIP. RANG	<u> </u>
AL LOCATION OF WELL (FOOTAGES)  AT SURFACE: 1340' FSL & 871' FWL  AT TOP PRODUCING INTERVAL REPORTED BELOW: 1229' F5L at 888' FWL																		
AT TOTAL DEPT	н: 126	Þ <b>6</b> ′	FSL								HL 6 HSW	Ì		OUNTY ARBO	ON .	1:	3. STATE	UTAH
14. DATE SPUDDED	D: 15.		.D. REACH		16. DAT	E COMPLI 14/201	ETED:		BANDON		READY TO F				/ATIONS (E		RT, GL):	
18. TOTAL DEPTH:	1,0			9. PLUG	BACK T.[	D.: MD ,			20. IF I	MULTIPLE CO	OMPLETIONS	, HOW N	MANY? *	21. DEP	TH BRIDGE UG SET:			
22 TYPE ELECTRIC	TVD 4:6	. , ,	11.0	S PLIN (S	Submit co		4,538	<u>3                                    </u>		23						TVD		
22. TYPE ELECTRIC AND OTHER MECHANICAL LOGS RUN (Submit copy of each)  CD/CN/GR, DUAL INDUCTION GUARD LOG/GR, DUAL INDUCTION GUARD LOG/GR, CBL/CCL/GR  23.  WAS WELL CORED?  WAS DST RUN?  DIRECTIONAL SURVEY?  NO YES (Submit analysis)  (Submit report)  PLES (Submit copy)																		
24. CASING AND LI	NER RECORD	(Report	all strings	set in we	ell)			_										
HOLE SIZE	SIZE/GRAI	DE	WEIGHT	/EIGHT (#/ft.) TOP (MD) BOTTOM (MD) STAGE CEMENTER CEMENT TYPE & NO. OF SACKS						SLUR VOLUME		CEMENT	TOP **	AMOUNT	PULLED			
17"	12.75					)	4	1							0.0		<u> </u>	
11"		J55	24					15			G	495			0.0		<u> </u>	
7.875"	5.500	N80	<u>17</u>	<u> </u>	(	)	4,5	582			CLS III	391			4040	CBL	<u> </u>	
		_									<u></u>							
											<u> </u>		-				$\vdash$	
25. TUBING RECOR	<u>                                       </u>		<del></del>	<u>\</u>							1					_	1	
SIZE	DEPTH S	ET (MD)	PACKE	R SET (N	MD)	SIZE		DEPTH	SET (MD)	PACKE	R SET (MD)		SIZE	D	EPTH SET	(MD)	PACKER S	SET (MD)
2.375"	4,4	51																
26. PRODUCING IN	TERVALS									27. PERFO	RATION REC	ORD						
FORMATION		TOP		BOTTO		TOP		вотто			L (Top/Bot - N		SIZE	NO. HOL			ATION STA	TUS
(A) FERRON		4,0	)28	4,4	120	4,0	)28	4,4	20	4,030	4,	402	0.56	312	_		Squeezed	<u> </u>
(B)												_			Open	<del></del>	Squeezed	ᆜ
(C)												_			Open	<u> </u>	Squeezed	<u></u>
(D)		ļ				<u> </u>									Open	Ц_	Squeezed	<u> </u>
28. ACID, FRACTU	RE, TREATME	NT, CEME	NT SQUE	EZE, ETC	). 													
DEPTH	INTERVAL	10									YPE OF MAT	_						
4030-4224 (	MULTI IN	NTS)									20/40 W							
4287-4402 (	MULTIIN	ITS)	SLIC	KWA	TER E	ORAT	TE FR	AC w/	43,49	6 # OF 2	20/40 WI	HITE	& 78,5	28#	OF 16/	30 W	HITE	
29. ENCLOSED AT	TACHMENTS:															30. WELI	_STATUS:	
	RICAL/MECHA			CEMENT	VERIFIC	ATION	$\equiv$	GEOLOGI CORE AN			DST REPORT	• •	DIRECTION	V RPT	rs_		HUT	IN
										. ,	,			R	ECE	AED		

(CONTINUED ON BACK)

(5/2000)

NOV 1 3 2012

31. INITIAL PR	ODUCTION			INT	ERVAL A (As sho	wn in item #26)				
DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTER	D:	TEST PRODUCTION RATES: →	OIL – BBL:	GAS - MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL - BBL:	GAS - MCF:	WATER – BBL:	INTERVAL STATUS
		<u> </u>	·	INT	ERVAL B (As sho	wn in item #26)				
DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTER	HOURS TESTED:		OIL - BBL:	GAS - MCF:	WATER - BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS MCF:	WATER – BBL:	INTERVAL STATUS
				INT	ERVAL C (As sho	wn in item #26)				
DATE FIRST PF	RODUCED:	TEST DATE:		HOURS TESTE	HOURS TESTED:		OIL - BBL:	GAS - MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION RATES: →	OIL – BBL:	GAS - MCF:	WATER – BBL:	INTERVAL STATUS
-	I			INT	ERVAL D (As sho	wn in item #26)			-	
DATE FIRST PRODUCED:		TEST DATE:		HOURS TESTE	HOURS TESTED:		OIL – BBL:	GAS - MCF:	WATER – BBL:	PROD. METHOD:
CHOKE SIZE:	TBG. PRESS.	CSG. PRESS.	API GRAVITY	BTU – GAS	GAS/OIL RATIO	24 HR PRODUCTION	OIL - BBL:	GAS - MCF:	WATER - BBL:	INTERVAL STATUS:

32. DISPOSITION OF GAS (Sold, Used for Fuel, Vented, Etc.)

#### 33. SUMMARY OF POROUS ZONES (Include Aquifers):

Show all important zones of porosity and contents thereof. Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

34. FORMATION (Log) MARKERS:

Formation	Top (MD)	Bottom (MD)	Descriptions, Contents, etc.	Name	Top (Measured Depth)
FERRON	4,028	4,420	SANDSTONES AND COALS	Lower Bluegate Bentonite Mkr Upper Ferron Marine SS Ferron SS Ferron Basal Marine Tununk Shale	3,946 4,028 4,093 4,395 4,511

35. ADDITIONAL REMARKS (Include plugging procedure)

PLEASE SEE ATTACHMENT FOR COMPLETE PERF. INTERVALS, UNABLE TO FIT ALL INTERVALS ON THIS FORM.

36. I hereby certify that the foregoing and attached information is complete and correct as det	ermined from all available records.
NAME (PLEASE PRINT) BARRY BRUMWELL, C.E.T.	TITLE VICE PRESIDENT of OPERATIONS
DAR (PO)	44/4/2042

This report must be submitted within 30 days of

- completing or plugging a new well
- · drilling horizontal laterals from an existing well bore
- recompleting to a different producing formation
- reentering a previously plugged and abandoned well
- significantly deepening an existing well bore below the previous bottom-hole depth
- drilling hydrocarbon exploratory holes, such as core samples and stratigraphic tests

\*\*ITEM 24: Cement Top - Show how reported top(s) of cement were determined (circulated (CIR), calculated (CAL), cement bond log (CBL), temperature survey (TS)).

Send to:

Utah Division of Oil, Gas and Mining 1594 West North Temple, Suite 1210

Box 145801

Salt Lake City, Utah 84114-5801

Phone: 801-538-5340

Fax: 801-359-3940

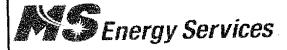
<sup>\*</sup> ITEM 20: Show the number of completions if production is measured separately from two or more formations.

## To Whom It May Concern;

The well GORDON CREEK SW-32-13-8 was
perforated and stimulated with the following
intervals:

	4030 - 4032						
	4043 - 4045						
STAGE #2	4056 - 4060	FRACTURE STIMULATED					
	4100 - 4104	WITH A SLICKWATER					
	4142 - 4146	BORATE FRAC with					
	4154 - 4156	48,464 # OF 20/40					
	4160 - 4162	WHITE SAND and 85,872					
	4193 - 4195	# OF 16/30 WHITE SAND.					
	4208 - 4210	# 01 10/30 WITH 3AND					
	4214 - 4216						
	4222 - 4224						
	4287 - 4290	FRACTURE STIMULATED					
	4301 - 4303	WITH A SLICKWATER					
	4331 - 4333	BORATE FRAC with					
STAGE #1	4348 - 4352	43,496# OF 20/40 WHITE					
	4358 - 4364	SAND and 78,528 # OF					
	4372 - 4375	16/30 WHITE SAND.					
	4398 - 4402	TO/ SO WITH L SAIND.					

IT WAS NOT POSSIBLE TO FIT ALL OF THIS INFORMATION ON FORM 8.



Job Number: SVGJ-120752

Company: Gordon Creek, LLC

Lease/Well: Gordon Creek State SW-32-13-8

Location: Carbon County, UT

Rig Name: MS Wireline

**RKB: 0'** 

G.L. or M.S.L.: GL

State/Country: Utah/USA

Declination: 11.49°

Grid: East To True North

File name: F:\SURVEY\2012SU~1\GORDON~1\LORENZ\GORDON~1\SW32138.SV

Date/Time: 26-Jul-12 / 15:23

Curve Name: Surface - 4565' M.D. (Rate Gyro)

#### WINSERVE SURVEY CALCULATIONS

Minimum Curvature Method Vertical Section Plane .00 Vertical Section Referenced to Wellhead Rectangular Coordinates Referenced to Wellhead We hereby certify that our survey data from SUNGOMD to 4:565 MD is, to the best of our knowledge a true and accurate account of the well bore.

\*\*The Survey Date our Survey data from 1:565 MD is, to the best of our knowledge a true and accurate account of the well bore.

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\*\*The Survey Date of Survey Date our Survey data from 1:565 MD is, to the best of our knowledge a true and accurate account of the well bore.

\*\*The Survey Date of Survey Date our Survey Date of Survey Date our Survey Date

Measured Depth FT	inci Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	C L C Distance FT	OSURE Direction Deg	Dogleg Severity Deg/100
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
100.00	.47	108.25	100.00	13	.39	13	.41	108.25	.47
200.00	1.09	144.93	199.99	-1.04	1.33	-1.04	1.68	127.99	.77
300.00	2.29	162.76	299.94	-3.72	2.46	-3.72	4.46	146.49	1.30
400.00	3.28	167.20	399.83	-8.42	3.69	-8.42	9.19	156.33	1.01
500.00	3.95	164.95	499.63	-14.54	5.22	-14.54	15.44	160.25	.68
600.00	4.93	167.84	599.32	-22.06	7.02	-22.06	23.15	162.35	1.00
700.00	5.75	169.56	698.89	-31.19	8.83	-31.19	32.42	164.19	.84
800.00	6.39	169.54	798.33	-41.59	10.75	-41.59	42.96	165.51	.64
900.00	6.14	166.76	897.73	-52.27	12.98	-52.27	53.86	166.05	.39

Measured	incl	Drift	True			Vertical	CLO	SURE	Dogleg
Depth	Angle	Direction	Vertical	N-S	E-W	Section	Distance	Direction	Severity
FT_	Deg	Deg	Depth	FT	FT	FT	FT	Deg	Deg/100
1000.00	5.32	165.11	997.23	-61.95	15.40	-61.95	63.84	166.04	.84
1100.00	4.51	165.31	1096.86	-70.24	17.59	-70.24	72.41	165.94	.81
1200.00	3.97	165.44	1196.59	-77.39	19.46	-77.39	79.80	165.89	.54
1300.00	3.51	163.87	1296.38	-83.68	21.18	-83.68	86.32	165.80	.47
1400.00	3.18	167.93	1396.21	-89.33	22.61	-89.33	92.15	165.80	.41
1400.00	3.10	107.00	1000.21	33.33					
1500.00	3.03	170.23	1496.06	-94.65	23.64	-94.65	97.56	165.98	.19
1600.00	2.95	172.93	1595.92	-99.81	24.40	-99.81	102.75	166.26	.16
1700.00	2.80	176.03	1695.80	-104.80	24.89	-104.80	107.71	166.64	.22
1800.00	2.61	175.01	1795.69	-109.50	25.25	-109.50	112.38	167.01	.20
1900.00	2.47	172.75	1895.59	-113.91	25.72	-113.91	116.78	167.27	.17
1000.00	<b>2</b> 1 7	1, 2,, 4							
2000.00	2.19	171.07	1995.50	-117.94	26.29	-117.94	120.83	167.43	.29
2100.00	2.29	167.50	2095.43	-121.77	27.02	-121.77	124.74	167.49	.17
2200.00	2.07	165.85	2195.36	-125.48	27.89	-125.48	128.54	167.47	,23
2300.00	1.63	162.65	2295.30	-128.58	28.76	-128.58	131.76	167.39	.45
2400.00	1.57	161.33	2395.26	-131.24	29.62	-131.24	134.54	167.28	.07
2100.00	,,,,,								
2500.00	1.57	164.88	2495.23	-133.86	30.42	-133.86	137.27	167.20	.10
2600.00	1.39	162.36	2595.19	-136.34	31.14	-136.34	139.85	167.13	.19
2700.00	1.02	162.57	2695.17	-138.34	31.78	-138.34	141.95	167.06	.37
2800.00	.85	170.28	2795.16	-139.92	32.17	-139.92	143.57	167.05	.21
2900.00	.49	184.82	2895.15	-141.08	32.26	-141.08	144.72	167.12	.40
2000.00									
3000.00	.53	212.31	2995.15	-141.90	31.98	-141.90	145.46	167.30	.25
3100.00	.60	219.07	3095.14	-142.70	31.40	-142.70	146.11	167.59	.10
3200.00	.78	237.36	3195.13	-143.47	30.50	-143.47	146.67	168.00	.28
3300.00	1.12	244.77	3295.12	-144.25	29.04	-144.25	147.15	168.62	.36
3400.00	1.11	254.66	3395.10	-144.93	27.22	-144.93	147.46	169.36	.19
	,,								
3500.00	1.00	258.11	3495.09	-145.36	25.43	-145.36	147.57	170.08	.13
3600.00	.96	281.17	3595.07	-145.38	23.76	-145.38	147.31	170.72	.39
3700.00	1.12	296.67	3695.05	-144.78	22.06	-144.78	146.45	171.34	.32
3800.00	1.15	300.58	3795.03	-143.83	20.32	-143.83	145.26	171.96	.08
3000.00	1.10	000.00							

Page 2
Surface - 4565' M.D. (Rate Gyro) File: F:\SURVEY\2012SU~1\GORDON~1\LORENZ\GORDON~1\SW32138.SVY

Measured	Incl	Drift	True			Vertical	CLO	SURE	Dogleg
Depth FT	Angle Deg	Direction Deg	Vertical Depth	N-S FT	E-W FT	Section FT	Distance FT	Direction Deg	Severity Deg/100
3900.00	1.39	308.81	3895.01	-142.56	18.52	-142.56	143.76	172.60	.30
4000.00	1.34	313.15	3994.98	-141.00	16.72	-141.00	141.99	173.24	.11
4100.00	1.23	314.42	4094.96	-139.45	15.10	-139.45	140.26	173.82	.11
4200.00	1.04	309.21	4194.94	-138.12	13.63	-138.12	138.79	174.37	.22
4300.00	1.04	303.50	4294.92	-137.05	12.17	-137.05	137.59	174.93	.10
4400.00	.79	305.19	4394.91	-136.15	10.85	-136.15	136.58	175.44	.25
4500.00	1.21	303.76	4494.89	-135.17	9.41	-135.17	135.49	176.02	.42
Last Surve	y Depth Recor	ded							
4565.00	1.26	324.96	4559.88	-134.20	8.43	-134.20	134.46	176.41	.70

,,	S.		G	ordoı	n Cre	ek, L	LC.	
THUND			Well	Comple	etion/Wo	rkover	Report	
Well Name:	rgy G	ordon Cree	k SW-32-13			days Date:		28, 2012
Objective:			S FERRON			Day #:	1	
	11CMP005			Prev. Cost:	\$6,442		nulative Cost:	\$175,183
Zones of Int		Name:		rron	Perf Int.'s		Multiple	
		Name:			Perf Int.'s			
		Name:			Perf Int.'s			
Casing:	Size	Weight	Grade	Landed @	Rod String:	No. of	<u>Size</u>	<u>Type</u>
	8 5/8"	24#	J-55	814.75'				
Production:		17#	N-80	4582.85'	]			
Inter/Liner:	0	0	0	0				
Tubing:	Size	Weight	Landed @	<b>PSN Depth</b>				
#1					Pump Desci	ription:		
#2					1			
Depths:	TD:	4600	PBTD:	4544				
Elevations:	KB:	7457		7446	KB-GL:	11.00	API #:	43-007-50246
AM Pressure		Tubing:		Casing:		SCV:		
24 Hour Sur		Frac two s	tages, perfe	orate two zo	nes, set one	5 1/2" Bend	oit Flow Thru \	VR Plug
Operation at		7 100 1110 1	90-, ,					
Time		etailed Des	scription of	Previous Da	ys Operation		Daily Cost	Summary
7:30	Travel to loc		sonpaon or	1 1011040 50	.ус оронило		Item	Amount
<b>72</b>			g trucks ove	r and ridding	un		RFR - tank rent	\$280
8:00 0:45	MIRU RMW		g liucks ove	i and ngging	αp		RNI - water haul	\$4,680
9:45			el on location				RMWS - perfing	\$14,331
10:15	PAIDLE DAY	ali bersonire	th Coloot Fire	ı o norf dune d	on 1 run and p	erforate	HOWA - Potash	\$18,034
10:30							Seaboard - BOP	\$1,114
	lower Ferro	n 4398 -440	12 , 43 <i>1</i> 2 <del>-4</del> 3:	70,4300-43	64', 4348'-43 gram charge	52 , 56() 56" EH)		\$1,310
	4331-4333	, 4301-430	3, & 4201 -4	290 . WILL 20	gram Grange	15(0.30 1211)	Nabors	\$125,950
	loaded @ 6	snots/it on	60° phasing	. RD RIVIVS	'Od nai haldin	a stoody		\$3,042
12:30	MIRU Nabo	ors, prime up	and pressu	re test to 7,7	21 psi, holdin	g steady	Benoit	\$3,042
12:38	Open well v	vith 197 psi	2 bbls to loa	ad, BD 1,248	psi at 7.5 bpi	m 		
					er concentrati	on		
<b>1</b>	Flushed 2.2	bbls over t	oottom perf, i	reached 5.3	ppg			
13:06	ISIP - 477 p	osi, FG - 0.5	49 psi/ft, 5 m	nin - 219 psi,	10 min - 49 p	si		<u> </u>
1	12 min - 0 p	si, BLTR - '	1,482 bbls		_		<u></u>	
13:18	MIRU RMV	/S & RIH wi	th Select Fire	e perf guns o	on 1 run and p	perforate		
Ï	upper Ferro	on 4222'-422	24', 4214'-42	:16', 4208'-42	210', 4193'-41	95',		
	4160'-4162'	', 4154'-415	6', 4142'-414	<del>1</del> 6, 4100'-41(	04, 4056'-406	0, 4043'-404		
	& 4030'-403	32, with 25 (	gram charge	s(0.56" EH) l	loaded @ 6 sl	nots/ft		
	on 60° phas	sing. RIH wi	th 5 1/2" Ber	noit Flow Thr	u WR Plug ar	nd set plug		
	at 4,275' CO	DE. POOH	, RDMO RM	WS				
15:45	MIRU Nabo	ors, prime u	p					<u></u>
15:48	Open well v	vith 0 psi, 4	2 bbls to load	d, BD 2,285	psi at 7.5 bpm	1		
					er concentrati		Daily Cost:	\$168,74
	Lost the ble	nder tub at	5 ppg, sand	spiked to 6 p	opg, had to cu	it the sand	Personnel On Lo	ocation:
ll .	and drop ra	ite to aet it l	ined out and	back to 91 b	pm and 5.4 p	pg	Rig:	3
					og with spike		Services:	
16:11			42 psi/ft, 5 n				G.C.L.L.C.:	
1	BI TR - 1.5	25 bbls RD	MO Nabors	and move to	NW-5-14-8		Total:	4
Fluid Recor		Oil	Water		er & Roads:	Contact In	formation:	
Hauled in	<u>u.</u>	<u> </u>	Tratei	Weather:		Supervisor		ttebaum
H			+	Temp:		Cell #:		8-8278
Total Fluid :	d In:		1	Lease:	_	Alt #:		)
Fluid Pumpe			<del></del>			Report to:		Calgary Head Ofc.
Left to Reco			<del>                                     </del>	Roads:		Email to:		lerbirdenergy.com
Fluid Hauled O			<del>                                     </del>	Rig Co:			22, 7 01,00,1 0110	
Load Left to Re	cover:		<u> </u>	Rig #:				

	1	444	_		- 0	_ 1		
			G	ordoi	1 Cred	eK, L	LC.	
	ERBIRD		Well	Comple	etion/Wo	rkover	Report	
Well Name:	RGY G	ordon Cree	ek SW-32-13			days Date:	October 1	6, 2012
Objective:				, RUN TBG,		Day #:	2	
	11CMP005			Prev. Cost:	\$175,183	Cumn	nulative Cost:	\$178,163
Zones of Int		Name:			Perf Int.'s	<del> </del>		
		Name:			Perf Int.'s			
		Name:			Perf Int.'s	No. of	Sizo	Type
Casing:	<u>Size</u>	Weight	<u>Grade</u>	Landed @	Rod String:	No. of	<u>Size</u>	Type
Surface:	8 5/8"	24#	J-55	814.75'				
1	5 1/2"	17#	N-80 0	4582.85'	<del> </del>			
Inter/Liner:	Size	Weight		PSN Depth	<b>,</b>			
Tubing: #1	Size	VVEIGHT	Landed (de	I ON DODAN	Pump Descr	iption:		
#2				<u> </u>				
Depths:	TD:	4600	PBTD:	4544				
Elevations:	KB:				KB-GL:	11.00	API#:	43-007-50246
AM Pressur		Tubing:		Casing:	40	SCV:	0	
24 Hour Sur								
Operation at	0800 Hours:	No activity,	moved on lo	ocation @ 1:	30 pm			
Time	D	etailed Des	scription of	Previous Da	ys Operation	S	Daily Cost	Summary
13:30	move to loc						<u>Item</u>	<u>Amount</u>
14:30	rig up						rig	\$1,475
15:30			e BOP & pui				Hardy serv	\$345
16:30	nipple dowr	n WH & nipp	oled up BOP				Neilson	\$660
18:30			n Bailer asse	mbly, & 93 jt	S.		sws	\$500
19:00	SWIFN & S	D						
	1							
	1							
	1							
							<del></del>	<u></u>
							<u> </u>	
	ľ							
	Ļ							
	ļ							
							Daily Cost:	\$2,980
							Personnel On L	·
							Rig:	4
	1						Services:	3
							G.C.L.L.C.:	1
						Ta	Total:	8
Fluid Recor	rd:	Oil	Water		er & Roads:		formation:	ttebaum
Hauled in			100	Weather:	clear & wind			8-8278
Total Fluid :				Temp:		Cell #:		0-0270
Fluid Pumpe			<b>_</b>	Lease:	ok ok	Alt #: Report to:		Calgary Head Ofc.
Left to Reco			<del> </del>	Roads:	Pro well ser	Email to:		derbirdenergy.com
Fluid Hauled O			<del> </del>	Rig Co:	#5	Linai to.		3,
Load Left to Re	ecover:		<u> </u>	Rig #:	#0	<u> </u>		

			G	ordoi	ı Cre	ek, L	LC.	
	FRBIRD		Well	Comple	etion/Wo	rkover	Report	
Well Name:	rgy G	ordon Cree	ek SW-32-13			days Date:	October 1	7, 2012
Objective:				, RUN TBG,		Day #:	3	
	11CMP005			Prev. Cost:	\$178,163	Cumn	nulative Cost:	\$187,815
Zones of Int		Name:			Perf Int.'s			
		Name:			Perf Int.'s			
		Name:			Perf Int.'s			
Casing:	<u>Size</u>	<u>Weight</u>	<u>Grade</u>		Rod String:	No. of	<u>Size</u>	<u>Type</u>
Surface:	8 5/8"	24#	J-55	814.75'				
Production:		17#	N-80	4582.85'				
Inter/Liner:								
Tubing:	Size	Weight		PSN Depth	Duran Dagar	intion:		
#1	2.375	4.7	4451	4413	Pump Descr	iption:		
#2		4000	PBTD:	<u>4544</u>				
Depths:	TD:	4600			KB-GL:	11.00	API#:	43-007-50246
Elevations:	KB:					SCV:		10 007 002 10
AM Pressur		Tubing:	0	Casing:	it RH, Run pr			
24 Hour Sur			ed plug and	i cleaned of	it Kin, Kun pi	oddelloll d	31145	
Operation at	0800 Hours:	11II	arintian of	Provious Da	ys Operation	ie .	Daily Cost	Summary
Time			scription of	Frevious De	ys Operation		Item	Amount
7:00	Travel to loc		and				Rig	\$3,908
7:30	service rig,	TIP to tay s	it 121 bailed	l down to plu	o (20' sand)		Benoit serv	\$4,744
8:30	Pach with n	iu (w 4255 j	ji 131, balled Jer Jaid out r	down to plu	g (20 oand) oreak from win	ıd	sws	\$1,000
10:30	Poon with ho	ilor assemb	let, laid out p ly to clean o	ut RH	TOUR HOTH WITH			
11:30	hailed 20' o	nt fill laid or	ut 6 jts. TOOI	H				
12:00 14:00	BOOH and	dumped sa	nd cavity lai	d out bailer a	ssembly			
14:00	Lunch	damped od	ria carrey, iai	u out ======	,,			
15:30	RIH with NO	1 it 4'ne	erf sub. PSN.	and 135 its.	of 2.375 tubir	ng,		
15.50	I anded @	4451' FOT	PSN at 4413	3'.		C.		
16:30	Rig down fle	oor, nipple (	down BOP. r	nipple up WH				
17:00	ria up to sw	ab. fluid lev	el 1st run @	1800', CP @	2 10#			
17.00	made runs	10. fl level 1	1900', CP @	10#, pulling	fluid from 320	0'		
	5 bbls per r	un 50 bbls v	water recove	red,				
19:00	SWIFN & S							
4	<b>I</b>							
1								
l								
1								
							<u></u>	
1							Daily Cost:	\$9,652
							Personnel On L	
1							Rig:	4
1	1						Services:	1
							G.C.L.L.C.:	- 6
<u></u>	<u> </u>			Tanasar r	0. De - de	Contact la	Total:	<u> </u>
Fluid Recor	rd:	Oil	Water		er & Roads:		formation:	ttebaum
Hauled in				Weather:	windy& cold			8-8278
Total Fluid :				Temp:	37	Cell#:  Alt#:		0
Fluid Pumpe			ļ	Lease:	dusty	Report to:		Calgary Head Ofc.
Left to Reco			<del> </del>	Roads:	dusty Pro well serv			derbirdenergy.com
Fluid Hauled O			<del> </del>	Rig Co:		1		
Load Left to Re	ecover:			Rig #:	#5			

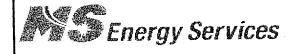
, sale	Q <sub>j</sub>		G	ordo	n Cre	ek, L	.LC.	
	ERBIRD	ı	Well	Comple	etion/Wo	rkover	Report	
Well Name:		ordon Cree	ek SW-32-13	3-8	To	days Date:	October	18, 2012
Objective:	PERF/FRA	AC 2 STAGI	ES FERRON	I, RUN TBG,	BHP/RODS	Day #:		4
1 -	11CMP005			Prev. Cost:	\$187,815		nulative Cost:	\$212,98
Zones of Int		Name:			Perf Int.'s			
		Name:			Perf Int.'s			
		Name:			Perf Int.'s			
Casing:	Size	Weight	<u>Grade</u>		Rod String:	No. of	<u>Size</u>	<u>Type</u>
Surface:	8 5/8"	24#	J-55	814.75'	]			<u></u>
Production:		17#	N-80	4582.85'				
Inter/Liner:	0		0	<u> </u>				
Tubing:	<u>Size</u>	Weight	Landed @	PSN Depth			<u>L</u>	<u> </u>
#1					Pump Descr	iption:		
#2	L	4000	DDTD.	1514		·		
Depths:	TD:	4600	PBTD:	4544	IVD OL:	44.00	ADL#.	40.007.50040
Elevations:	KB:	7457	GL:				API #:	43-007-50246
AM Pressure		Tubing:	0		10	SCV:		
24 Hour Sun			own and m	ove				
Operation at (			animal an af l	Decidence De	On a madia m		Doily Cont	Cumana
Time	travel to loca		cription or	Previous Da	ys Operation	5		Summary
7:00 7:30			) 10#, TP @	0			<u>Item</u>	Amount
7:30 8:00	1st run fluid			U			rig SWS	\$3,556 \$1,000
12:30				l coal fines	& foam, 26 tot	al rune	Tubing & Acces.	\$20,612
16:00					fluid from 350		Tubing & Acces.	\$20,012
10.00					red in 2 days 2			
17:00	rig down & r		ay 170 bbio,	100010	104 111 2 44,0 2	-20 0010		<del>†</del>
17.00								<u> </u>
								<b>†</b>
							Daily Cost:	\$25,168
							Personnel On Lo	ocation:
							Rig:	<del> </del>
							Services:	<del> </del>
							G.C.L.L.C.:	<del> </del>
							Total:	J

•

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al Ta

Fluid Record:	Oil	Water	AM Weath	er & Roads:	Contact Inf	ormation:
Hauled in			Weather:	clear & wind	Supervisor:	Brad Pottebaum
Total Fluid :	-		Temp:	43	Cell #:	303-218-8278
Fluid Pumped In:			Lease:	ok	Alt#:	0
Left to Recover			Roads:	ok	Report to:	Barry Brumwell - Calgary Head Ofc.
Fluid Hauled Out			Rig Co:	Pro well ser	Email to:	bbrumwell@thunderbirdenergy.com
Load Left to Recover:			Rig #:	#5		



Job Number: SVGJ-120752

Company: Gordon Creek, LLC

Lease/Well: Gordon Creek State SW-32-13-8

Location: Carbon County, UT

Rig Name: MS Wireline

**RKB: 0'** 

G.L. or M.S.L.: GL

State/Country: Utah/USA

Declination: 11.49°

Grid: East To True North

File name: F:\SURVEY\2012SU~1\GORDON~1\LORENZ\GORDON~1\SW32138.SV

Date/Time: 26-Jul-12 / 15:23

Curve Name: Surface - 4565' M.D. (Rate Gyro)

#### WINSERVE SURVEY CALCULATIONS

Minimum Curvature Method
Vertical Section Plane .00
Vertical Section Referenced to Wellhead
Rectangular Coordinates Referenced to Wellhead

We hereby certify that our survey data from SUNGOMD to 4;565 MD is, to the best of our knowledge a true and accurate account of the well bore.

SOH Sign Services

Date

Measured	Incl	Drift	True			Vertical	CLC	SURE	Dogleg
Depth FT	Angle Deg	_	Vertical Depth		E-W FT	Section FT	Distance FT	Direction Deg	Severity Deg/100
.00	.00	.00	.00	.00	.00	.00	.00	.00	.00
100.00	.47	108.25	100.00	13	.39	13	.41	108.25	.47
200.00	1.09	144.93	199.99	-1.04	1.33	-1.04	1.68	127.99	.77
300.00	2.29	162.76	299.94	-3.72	2.46	-3.72	4.46	146.49	1.30
400.00	3.28	167.20	399.83	-8.42	3.69	-8.42	9.19	156.33	1.01
500.00	3.95	164.95	499.63	-14.54	5.22	-14.54	15.44	160.25	.68
600.00	4.93	167.84	599.32	-22.06	7.02	-22.06	23.15	162.35	1.00
700.00	5.75	169.56	698.89	-31.19	8.83	-31.19	32.42	164.19	.84
800.00	6.39	169.54	798.33	-41.59	10.75	-41.59	42.96	165.51	.64
900.00	6.14	166.76	897.73	-52.27	12.98	-52.27	53.86	166.05	.39

Measured	Incl	Drift	True			Vertical	CLO	SURE	Dogleg
Depth	Angle	Direction	Vertical	N-S	E-W	Section	Distance	Direction	Severity
FT FT	Deg	Deg	Depth	FT	FT	FT	FT	Deg	Deg/100
1000.00	5.32	165.11	997.23	-61.95	15.40	-61.95	63.84	166.04	.84
1100.00	4.51	165.31	1096.86	-70.24	17.59	-70.24	72.41	165.94	.81
1200.00	3.97	165.44	1196.59	-77.39	19.46	-77.39	79.80	165.89	.54
1300.00	3.51	163.87	1296.38	-83.68	21.18	-83.68	86.32	165.80	.47
1400.00	3.18	167.93	1396.21	-89.33	22.61	-89.33	92.15	165.80	.41
									40
1500.00	3.03	170.23	1496.06	-94.65	23.64	-94.65	97.56	165.98	.19
1600.00	2.95	172.93	1595.92	<b>-</b> 99.81	24.40	-99.81	102.75	166.26	.16
1700.00	2.80	176.03	1695.80	-104.80	24.89	-104.80	107.71	166.64	.22
1800.00	2.61	175.01	1795.69	-109.50	25.25	-109.50	112.38	167.01	.20
1900.00	2.47	172.75	1895.59	-113.91	25.72	-113.91	116.78	167.27	.17
2000.00	2.19	171.07	1995.50	-117.94	26.29	-117.94	120.83	167.43	.29
2100.00	2.29	167.50	2095.43	-121.77	27.02	-121.77	124.74	167.49	.17
2200.00	2.29	165.85	2195.36	-125.48	27.89	-125.48	128.54	167.47	,23
2300.00	1.63	162.65	2295.30	-128.58	28.76	-128.58	131.76	167.39	.45
2400.00	1.57	161.33	2395.26	-131.24	29.62	-131.24	134.54	167.28	.07
2400.00	1.57	101.33	2595.20	-131.24	20.02	-101.24	10 1.0 1	707.20	,
2500.00	1.57	164.88	2495.23	-133.86	30.42	-133.86	137.27	167.20	.10
2600.00	1.39	162.36	2595.19	-136.34	31.14	-136.34	139.85	167.13	.19
2700.00	1.02	162.57	2695.17	-138.34	31.78	-138.34	141.95	167.06	.37
2800.00	.85	170.28	2795.16	-139.92	32.17	-139.92	143.57	167.05	.21
2900.00	.49	184.82	2895.15	-141.08	32.26	-141.08	144.72	167.12	.40
0000 00	50	242.24	2995.15	-141.90	31.98	-141.90	145.46	167.30	.25
3000.00	.53	212.31	3095.14	-142.70	31.40	-142.70	146.11	167.59	.10
3100.00	.60	219.07	3195.13	-143.47	30.50	-143.47	146.67	168.00	.28
3200.00	.78	237.36		-143.4 <i>1</i> -144.25	29.04	-144.25	147.15	168.62	.36
3300.00	1.12	244.77	3295.12	-144.25 -144.93	29.0 <del>4</del> 27.22	-144.93	147.46	169.36	.19
3400.00	1.11	254.66	3395.10	-144.93	21.22	-144.33	147.40	103.30	.10
3500.00	1.00	258.11	3495.09	-145.36	25.43	-145.36	147.57	170.08	.13
3600.00	.96	281.17	3595.07	-145.38	23.76	-145.38	147.31	170.72	.39
3700.00	1.12	296.67	3695.05	-144.78	22.06	-144.78	146.45	171.34	.32
3800.00	1.15	300.58	3795.03	-143.83	20.32	-143.83	145.26	171.96	.08

Page 2 Surface - 4565' M.D. (Rate Gyro) File: F:\SURVEY\2012SU~1\GORDON~1\LORENZ\GORDON~1\SW32138.SVY

Measured Depth FT	Incl Angle Deg	Drift Direction Deg	True Vertical Depth	N-S FT	E-W FT	Vertical Section FT	C L C Distance FT	SURE Direction Deg	Dogleg Severity Deg/100
3900.00	1.39	308.81	3895.01	-142.56	18.52	-142.56	143.76	172.60	.30
4000.00	1.34	313.15	3994.98	-141.00	16.72	-141.00	141.99	173.24	.11
4100.00	1.23	314.42	4094.96	-139.45	15.10	-139.45	140.26	173.82	.11
4200.00	1.04	309.21	4194.94	-138.12	13.63	-138.12	138.79	174.37	.22
4300.00	1.04	303.50	4294.92	-137.05	12.17	-137.05	137.59	174.93	.10
4400.00	.79	305.19	4394.91	-136.15	10.85	-136.15	136.58	175.44	.25
4500.00	1.21	303.76	4494.89	-135.17	9.41	-135.17	135.49	176.02	.42
Last Survey 4565.00	y Depth Record 1.26	ded 324.96	4559.88	-134.20	8.43	-134.20	134.46	176.41	.70

	STATE OF UTAH		FORM 9
ı	DEPARTMENT OF NATURAL RESOURG DIVISION OF OIL, GAS, AND MIR		5.LEASE DESIGNATION AND SERIAL NUMBER: FEE
SUNDR	RY NOTICES AND REPORTS	ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
	posals to drill new wells, significantly reenter plugged wells, or to drill horizon n for such proposals.		7.UNIT or CA AGREEMENT NAME:
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: GORDON CREEK SW-32-13-8
2. NAME OF OPERATOR: GORDON CREEK, LLC			<b>9. API NUMBER:</b> 43007502460000
3. ADDRESS OF OPERATOR: 1179 E Main #345, Price,	UT, 84501 403 453-1	PHONE NUMBER: 608 Ext	9. FIELD and POOL or WILDCAT: WILDCAT
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1340 FSL 0871 FWL			COUNTY: CARBON
QTR/QTR, SECTION, TOWNSH	HIP, RANGE, MERIDIAN: 32 Township: 13.0S Range: 08.0E Mer	idian: S	STATE: UTAH
11. CHEC	K APPROPRIATE BOXES TO INDICA	TE NATURE OF NOTICE, REPOR	RT, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
The existing 1.5" i this well and the cal for the water prod water production workover rig onto th the 2 3/8" tubing Submersible Pur electric cable clam ESP at +/- 4250', ins put the well back increasing rates un	CHANGE TO PREVIOUS PLANS  CHANGE WELL STATUS  DEEPEN  OPERATOR CHANGE  PRODUCTION START OR RESUME  REPERFORATE CURRENT FORMATION  TUBING REPAIR  WATER SHUTOFF  WILDCAT WELL DETERMINATION  COMPLETED OPERATIONS. Clearly show nsert pump is operating at a culated Inflow Performance fuction in this well shows poin (~2000 - 2500 bbls/day). The well and pull the existing out of the well. We would to the outside of the tubstall a Variable Frequency Dispersion of the well showed signs of We anticipate a dramatic incident.	a very low efficiency in Relationship (IPR) curve tential for VERY HIGH The plan is to move a rods & insert pump and hen run an Electronic he 2 3/8" tubing with bing. We would land the rive (VFD) at surface and in the ESP in gradually being nearly "pumped"	Accepted by the Utah Division of Oil, Gas and Mining  Date: March 05, 2013  By: Day K. Durf
NAME (PLEASE PRINT)	PHONE NUME		
Barry Brumwell SIGNATURE	403 453-1608	Vice President-Operations  DATE	
N/A		2/25/2013	

	STATE OF UTAH		FORM 9
	DEPARTMENT OF NATURAL RESOURCE DIVISION OF OIL, GAS, AND MIN	-	5.LEASE DESIGNATION AND SERIAL NUMBER: FEE
SUNDR	RY NOTICES AND REPORTS	ON WELLS	6. IF INDIAN, ALLOTTEE OR TRIBE NAME:
	oposals to drill new wells, significantly or reenter plugged wells, or to drill horizor n for such proposals.		7.UNIT or CA AGREEMENT NAME:
1. TYPE OF WELL Gas Well			8. WELL NAME and NUMBER: GORDON CREEK SW-32-13-8
2. NAME OF OPERATOR: GORDON CREEK, LLC			9. API NUMBER: 43007502460000
3. ADDRESS OF OPERATOR: 1179 E Main #345, Price,	UT, 84501 403 453-16	PHONE NUMBER: 08 Ext	9. FIELD and POOL or WILDCAT: WILDCAT
4. LOCATION OF WELL FOOTAGES AT SURFACE: 1340 FSL 0871 FWL			COUNTY: CARBON
QTR/QTR, SECTION, TOWNSH	HIP, RANGE, MERIDIAN: 32 Township: 13.0S Range: 08.0E Merio	lian: S	STATE: UTAH
11. CHEC	K APPROPRIATE BOXES TO INDICAT	E NATURE OF NOTICE, REPOR	RT, OR OTHER DATA
TYPE OF SUBMISSION		TYPE OF ACTION	
The lower zones in water, overriding the workover rig onto the of the well. Then bridge plug at 4260 1/2 of the Ferron pethe bottom of 2 3/8	□ CHANGE TO PREVIOUS PLANS □ CHANGE WELL STATUS □ DEEPEN □ OPERATOR CHANGE □ PRODUCTION START OR RESUME □ REPERFORATE CURRENT FORMATION □ TUBING REPAIR ✓ WATER SHUTOFF □ WILDCAT WELL DETERMINATION  COMPLETED OPERATIONS. Clearly show at this well are contributing higher gas producing upper zone ne well & pull the existing room move on an eline unit and rule to temporarily shut off productions. We will then run to the tubing to +/- 3285', land to place the well back on producing to the place	th volumes of produced. Our plan is to move a ds, BHP and tubing out in & set a retrievable duced water from lower a 2.5" tubing pump on he tubing and run rods	Approved by the Utah Division of Oil, Gas and Mining  Date: April 04, 2013  By: Death Out
NAME (PLEASE PRINT)	PHONE NUMBI		
SIGNATURE	403 453-1608	Vice President-Operations  DATE  4/2/2013	
N/A		4/2/2013	



## State of Utah

DEPARTMENT OF NATURAL RESOURCES

MICHAEL R. STYLER Executive Director

Division of Oil, Gas and Mining

JOHN R. BAZA Division Director

May 27, 2014

Barry Brumwell

Thunderbird Energy / Gordon Creek, LLC  $#800, 555 - 4^{th}$  Avenue S.W.

Calgary, Alberta, Canada T2P 3E7

Vice President of Operations

Via FedEx

43 007 50246 Gordon Creek SW 32-13-8 32 135 8E

UTAH

OIL, GAS & MINING

Subject: Oil and Gas General Conservation Rule R649-3-36 - Shut-in and Temporarily Abandoned Wells

Dear Mr. Brumwell:

The Division of Oil, Gas and Mining (the "Division") issued Gordon Creek LLC c/o Thunderbird Energy (Gordon Creek) a Shut-in and Temporary Abandonment Notice of Violation (NOV), dated November 12, 2012, for the following seven (7) wells:

Burnside 29-14-8	API	43-007-30725	SI/TA approval - May 1, 2014
Gordon Creek ST 1-30-14-8	API	43-007-31235	SI/TA approval - Feb 1, 2014
Gordon Creek ST 4-18-14-8	API	43-007-30881	SI/TA approval - May 1, 2014
Gordon Creek ST 2-20-14-8	API	43-007-30883	Subsequent Sundry 2/15/2013 For Record Only
Gordon Creek ST 3-20-14-8	API	43-007-31233	SI/TA approval - May 1, 2014
Gordon Creek ST 2-29-14-8	API	43-007-31234	SI/TA approval - Feb 1, 2014
Gordon Creek ST 19-14-8(B)	API	43-007-30807	SI/TA approval - May 1, 2014
			• • •

In response to the NOV, the Division and Gordon Creek held a December 2012 conference call. Gordon Creek stated they had capital for equipping the field with well-site separators, electrification, pumping equipment and pipelines. Gordon Creek also stated they had capital for drilling additional wells in the field and committed to meeting shut-in well requirements for the above subject wells. Gordon Creek submitted a letter dated December 18, 2012, stating that it conducted casing integrity tests on all of the subject wells between July and September of 2010. Similar tests were also conducted on five (5) of the subject wells in 2011. The integrity tests were submitted to the Division. In addition, Gordon Creek submitted a letter dated December 19, 2012, specifically outlining its 2013 field development plans to electrify parts of the field, recomplete the Gordon Creek ST 4-18-14-18, Gordon Creek ST 3-20-14-8 and Gordon Creek ST 2-29-14-8 wells and drill 20 new additional wells. The Division later granted shut-in and temporary abandonment approvals for six (6) of the seven (7) wells listed above based on submitted sundries meeting shut-in extension requirements and the field plans described in the December 2012 letters with the understanding Gordon Creek would keep the Division updated on field development and any changes to the plans.

If any of the above proposed work was accomplished last year Gordon Creek did not keep the Division informed. We reviewed the Gordon Creek ST 4-18-14-18, Gordon Creek ST 3-20-14-8 and Gordon Creek ST 2-29-14-8 well files and did not find any notices of intent for recompletion or subsequent recompletion sundries for the wells. If work was done on the wells please submit sundries

Page 2 Gordon Creek, LLC May 27, 2014

immediately for the well files. Also, the above extended shut-in approvals required periodic pressure and fluid monitoring to ensure ongoing integrity of the wells. The periodic monitoring should have also been submitted to the Division on individual well sundries for Division review and well files. Shut-in extensions for two of the above wells expired February 1, 2014 and the other four expired May 1, 2014.

As of the date of this letter Gordon Creek currently have seventeen (17) shut-in wells, the above listed seven wells and the following ten (10) new wells:

Gordon Creek ST 1A-18-14-18 Gordon Creek NE-31-13-8 Gordon Creek NE-32-13-8 Gordon Creek SW-32-13-8 Gordon Creek NW-5-14-8 Gordon Creek ST SW-7-14-8 Gordon Creek ST SE-B-7-14-18 Gordon Creek NW-32-13-18 Gordon Creek NW-31-13-8 Gordon Creek SE-32-13-8	API API API API API API	43-007-30892 43-007-50243 43-007-50245 43-007-50246 43-007-50248 43-007-50242 43-007-50255 43-007-50250 43-007-50247	Last Prod – June 2013 Last Prod – May 2013 Last Prod – March 2013 Last Prod – June 2013 Last Prod – July 2013 Last Prod – May 2013 Last Prod – April 2013 Last Prod – Jan 2014 OPS – Spud Feb 2012 OPS – Spud Jan 2012
--	--	--	--

The operator is responsible to file, yearly, for extended shut-in or temporary abandonment for wells shut-in or temporarily abandoned for a period of twelve (12) consecutive months. Gordon Creek must file a Sundry Notice providing the following information for each of the above seventeen listed wells; reasons for shut-in or temporarily abandonment of the well, length of time the well is expected to be shut-in or temporarily abandoned and an explanation and supporting data showing the well has integrity (R649-3-36.1). After review the Division will either approve the continued shut-in or temporarily abandoned status or require remedial action (R649-3-36.2). After five (5) years of non-activity or non-productivity, the well shall be plugged in accordance with R649-3-24, unless approval for extended shut-in time is given by the Division upon a showing of good cause by the operator (R649-3-36.3). Please note, six (6) of the seventeen wells listed above have been shut-in over five (5) years.

Gordon Creek has until June 30, 2014, to submit sundries, for the subject wells, in accordance with Oil and Gas Conservation General Rule 649-3-36 Shut-in and Temporarily Abandoned Wells.

Should Gordon Creek not meet shut-in and temporarily abandoned well requirements, the Division is prepared to file a Notice of Agency Action (NAA) for Commencement of Informal Adjudicative Proceedings (R649-10-3) for this matter in accordance with Oil and Gas Conservation General Rule R649-10 Administrative Procedures.

If you have any questions or need further assistance, please feel free to contact me at <a href="mailto:clintondworshak@utah.gov">clintondworshak@utah.gov</a> or 801-538-5280 or Dustin Doucet, Petroleum Engineer, at <a href="mailto:dustindoucet@utah.gov">dustindoucet@utah.gov</a> or 801-538-5281.

Sincerely,

Clinton & Dworshak Clinton Dworshak

Oil and Gas Compliance Manager

CLD/js

cc: John Rogers, Oil & Gas Associate Director Dustin Doucet, Petroleum Engineer Well Files Compliance File

ATTORNEYS AT LAW

7440 CREEK ROAD, SUITE 250 SANDY, UTAH 84093 TELEPHONE (801) 566-8446 FACSIMILB (801) 566-8447 www.bweuergylaw.com

CASPER

CHEYENNE

DENVER

SALT LAKE CITY

SANTA FE

BRIAN A. TAYLOR

(801) 676-2307 BTAYLOR @BWENERGYLAW.COM

December 24, 2014

Clinton Dworshak Utah Division of Oil, Gas and Mining 1594 West North Temple, Suite 300 Salt Lake City, UT 84116

Dear Clint:

The purpose of this letter is to place in writing the agreement between Gordon Creek Energy, Inc. ("Gordon Creek") and the Utah Division of Oil, Gas and Mining (the "Division"), in order to satisfy the requirements of the August 4, 2014 Division Bonding Order (the "Order") issued by the Division.

At a meeting between Gordon Creek and the Division at the offices of the Division on Wednesday October 29, 2014, the Division and Gordon Creek discussed the various issues associated with Gordon Creek's operations in Utah and the impact the Order has on those operations. As a result of those discussions, it is understood by the Division that Gordon Creek is in the process of obtaining both short term and long term financing to enhance its operations in the State of Utah and that securing this financing is essential for Gordon Creek to acquire the necessary bonding for its wells in the State of Utah. It is anticipated that Gordon Creek will obtain some of this financing in early December 2014. Based on the receipt of those funds, Gordon Creek and the Division agreed to the following terms and conditions to withhold enforcement of the Order:

1. The funds obtained in December of 2014 will be used to re-work Gordon Creeks existing shut-in wells and improve the existing infrastructure of Gordon Creeks operations in the State of Utah. It is anticipated that all re-working activities will be completed by the end of December 2014 for the following wells:

API No.	<u>Well Name</u>	
43-007-30881	Gordon Creek 4-18-14-8	
43-007-30892	Gordon Creek 1A-18-14-8	
43-007-50242	Gordon Creek SW 7-14-8	

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Clinton Dworshak Utah Division of Oil, Gas and Mining December 24, 2014 Page 2

API No.

43-007-50243	Gordon Creek NE 31-13-8
43-007-50244	Gordon Creek NW 32-13-8
43-007-50245	Gordon Creek NE 32-13-8
43-007-50246	Gordon Creek SW 32-13-8
43-007-50248	Gordon Creek NW 5-14-8
43-007-50249	Gordon Creek NE 5-14-8
43-007-50255	Gordon Creek SE B 7-14-8

2. Given the winter closure requirements of the Utah Division of Wildlife Resources, from December 1, 2014 until April 15, 2015, and the amount of surface disturbance required to rework the wells, all re-working activities will be completed by June 30, 2015 for the following wells:

**Well Name** 

	17 WAZ - INGRAY	
43-007-30725	<b>Burnside 29-14-8</b>	
43-007-30807	Gordon Creek ST 19-14-8(B)	
43-007-30883	Gordon Creek ST 2-20-14-8	
43-007-31233	Gordon Creek ST 3-20-14-8	
43-007-31234	Gordon Creek ST 2-29-14-8	

- Gordon Creek will provide Sundry Notices to the Division on the progress of these well and infrastructure activities as required by the Well Workover and Recompletions rule, Utah Admin. Code R649-3-23.
- 4. The Division will not require Gordon Creek to provide bonding for all of its well locations at once, but will allow it to acquire the necessary depth bonding as described in R649-3-1(5.3) to cover the equivalent of four wells at a time at the rate of \$30,000.00 per well.
- 5. The existing \$120,000.00 blanket bond and the future bonding or surety, provided by Gordon Creek, as outlined in Paragraph 7 below, will cover all of the wells listed on Schedule A of the Order as two separate blanket bonds. In the event it becomes necessary to use proceeds from the blanket bonds, the Division will apply the proceeds to any one or more of the wells listed on Schedule A at its discretion. As such, if the plugging of a well, or group of a wells, cost less than the estimated \$30,000.00 as outlined in R649-3-1(5.3), the Division can use the remaining amount to plug and/or reclaim any of the other wells and well sites on Schedule A.

Clinton Dworshak Utah Division of Oil, Gas and Mining December 24, 2014 Page 3

- 6. The first payment of \$120,000.00 covering the equivalent of four wells will be due and payable by February 27, 2015.
- 7. Gordon Creek will make additional \$120,000.00 payments every three months until all of the existing shut-in wells listed on Schedule A of the Order are fully covered. These additional payments will be due on or before May 29, 2015, August 31, 2015, and November 30, 2015, with a final payment covering any outstanding amounts by February 27, 2016.
- 8. In the event Gordon Creek obtains additional long term financing prior to February 27, 2016, it will pay any remaining amount owed to have depth bonding on all of its wells in the State of Utah within 30 days of the closing date of the additional financing.
- 9. The Division will conduct a surface inspection of the wells listed as "Location Abandoned" on Schedule A of the Order to determine if any reclamation work is needed. In the event no reclamation work is needed, the \$1,500.00 bond requirements listed for those lands will be removed from the total amount owed by Gordon Creek.
- When Gordon Creek has satisfied the requirements for a blanket bond under R649-3-1
   the Division will release all additional bonding required by the Order upon the request of Gordon Creek.

If I have accurately stated our agreement and understanding, please sign below and return to me at your earliest opportunity.

Respectfully,

Brian A. Taylor

Attorney for Gordon Creek Energy

Gordon Creek Energy, Inc.

Rupert Evans

President

Clinton Dworshak Utah Division of Oil, Gas and Mining December 24, 2014 Page 4

The above correctly sets forth our agreement and understanding

Utah Division of Oil, Gas and Mining

Date: 12/30/14

By: Clinton Dworshak Compliance Manager

BAT: dc 5056.0002 334073 cc: John Rogers, Associate Director Dustin Doucet, Petroleum Bagincer

Douglas J. Crapo, Assistant Attorney General John Robinson Jr., Assistant Attorney General